# DOCUMENT RESUME

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| ED 135 183 | EC 093 158 |

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| AUTHOR | O'Brien, Rosemary, Comp. |
| TITLE | Alive...Aware...A Person: A Developmental Model for Early Childhood Services with Special Definition for Visually Impaired Children and Their Parents. (Includes Addendum I: Assessment Activities and Achievement Criteria). |
| INSTITUTION | Montgomery County Public Schools, Rockville, Md. |
| SPONS AGENCY | Bureau of Elementary and Secondary Education (DHEW/OE), Washington, D.C. |
| PUB DATE | 76 |
| NOTE | 521p. |
| EDRS PRICE | MF-$1.00 HC-$27.45 Plus Postage. |
| DESCRIPTORS | Cognitive Development; Conceptual Schemes; Early Childhood Education; Exceptional Child Research; Identification; Instructional Materials; *Intervention; *Language Development; Literature Reviews; Models; Motor Development; Perceptual Development; Performance Tests; *Program Descriptions; Program Planning; *Resource Guides; Social Development; *Student Evaluation; Theories; *Visually Handicapped |
| IDENTIFIERS | Maryland (Montgomery County); Parent Resources |

ABSTRACT

Provided is a manual describing a model for early childhood services for visually impaired children (birth to school readiness) developed in Montgomery County, Maryland; presenting the philosophical framework from which the services were developed; and providing some field-tested strategies for intervention with the children and their families. Section I describes how the model was developed and funding obtained, with chapters 1 and 2 covering a statement of needs and objectives, design of the program, procedures, staffing patterns, and support requirements; and chapter 3 reviewing the pilot study and project validation. Reviewed in Section II is literature on the impact of blindness on family and child, theoretical approaches in early childhood education, and language development. Chapters are devoted to the methodology of the field testing study, and the results and discussion of findings. Section III presents resource material to assist with assessment and program planning for teachers and others who provide early teaching and counseling services for children and their parents. Sections cover motor, language, sensory/perceptual, social awareness, and cognitive/creativity development. Tables and charts are provided throughout the text. Appended materials include lists of instructional materials and equipment and suggested resources, language evaluation scales, instructions for use of the eye report, and assessment activities and achievement criteria. (IM)

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# ALIVE..AWARE...A PERSON.

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## A developmental model for early childhood services

with special definition
for visually impaired children
and their parents

compiled and edited by

**Rosemary O'Brien, Ph.D.**
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# acknowledgements

Sincere appreciation is extended by the Project Director to all of those who participated in bringing this endeavor to completion:

Vision staff, including several who worked in the early stages of program implementation, have contributed much talent and resourcefulness in the discovery and trial of new ideas incorporated throughout. Those who worked on the final revision of the document in the summer of 1976 are:

Kathleen Anderson, Language Development Teacher
Marjorie Cernitz, Itinerant Teacher
Kathryn Dunlevy, Teacher Aide
Donna Feeney, Early Childhood/Vision Teacher
Sylvia Hoffman, Itinerant Teacher
Lia Lucchesi, Itinerant Teacher (Fairfax, Virginia)
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(Body awareness)

Gratitude is expressed to those too numerous to name here, i.e., teachers, administrators, social workers, occupational therapists, parents, and children who participated in the field testing, making the study and completion of the grant objectives possible, and to the Computer Science Center at Montgomery College, Rockville, Maryland, for processing the data.

Appreciation must be expressed to the following staff of the Maryland State Department of Education, Division of Compensatory, Urban, and Supplementary Education, Title III ESEA: Dr. Percy Williams, Assistant State Superintendent; Mrs. Frances Meginnis, Assistant Director; Mr. James F. McGowan, Specialist; and Ms. Lorraine M. Wright, Specialist; for the funding to implement this model of services, to field test materials, and to publish this document. Their supportive guidance and faith through the difficult times as well as the pleasant ones have demonstrated their compassion for children and their dedication to service.

A special thanks is due to Dr. Carson Nolan, Research Director at American Printing House for the Blind, who provided early direction and support of field testing activities.

Finally, gratitude is extended to Mrs. Helen Kohut, Director, Department of Federal, State and Private Grants; to members of the Montgomery County Board of Education and to the superintendent of schools, Dr. Charles Bernardo, for making this program of services and this resource document possible.

Rosemary O'Brien, Ph.D.
Project Director

# preface

This manual was written for three purposes: (1) to describe and disseminate this model for early childhood services as it developed in Montgomery County Public Schools, (2) to present the philosophical framework on and from which all services were developed, and (3) to provide some field tested, suggested strategies for intervening with children (birth to three years old) and their families.

Section one describes how the model was developed and (ESEA Title III) funding obtained. The original statement of critical needs and project objectives derived from them, the design of program, procedures, staffing patterns, and support requirements comprise chapters one and two. The pilot study and project validation are reviewed in chapter three.

Section two (chapter four) reports the resulting demonstration-developer grants made by Title III, ESEA for the primary purposes of disseminating, field testing, and preparing this manual.

The review of literature in chapter five addresses the impact of blindness on family and child, theoretical approaches in early childhood education, and language development. Chapters six and seven are devoted to the methodology of the field testing study and the results and discussion of findings.

Section three is designed to serve as a resource for teachers and others who provide early teaching and counseling services for children (birth to school readiness) and their parents. The intent is to assist staff with diagnostic assessment and program planning by providing field tested tools and strategies which have proved useful in ten settings in California, Pennsylvania, Texas, Utah, and of course, in Montgomery County, Maryland. That this is not a cookbook curriculum cannot be overemphasized. It is a resource for teachers and others who work with young children and their parents, and it contains ideas and suggestions from teachers from almost every participating site.

Although a majority of social workers found the Social Services material to be both appropriate and useful, they reported that infrequent contact with children made utilization of the educational strategies difficult. Workers who shared materials with school staffs where their clients were enrolled, however, reported successes.

The material in this document has proved useful for both young sighted and impaired children and their parents. Special provisions and adaptations are incorporated throughout for those who are visually impaired. Criteria for achievement are purposely omitted at the suggestion of many teachers who noted that individual assessment of development and impairment(s) should be considered.

The Project Director assumes full responsibility for limitations and inaccuracies contained here. Gratitude is expressed to all project staff and to the teachers, social workers, parents, and children who participated in field testing the material in this volume.

# table of contents

Page

Acknowledgements . . . . . ii
Preface . . . . . iii
List of Tables . . . . . ix
List of Charts . . . . . ix
Appendices . . . . . x

SECTION I: DEVELOPING THE MODEL

Chapter 1: Introduction . . . . . 1
  Purpose of This Document . . . . . 1
  Background . . . . . 1
  Critical Needs . . . . . 2
  Project Objectives Derived From Study of Needs . . . . . 5

Chapter 2: Design of Program . . . . . 7
  Service Components . . . . . 7
    Parent-Infant Intervention . . . . . 7
    Learning Center Classes . . . . . 7
      Pre-academic . . . . . 7
      Language Development/Multihandicapped . . . . . 7
  Criteria for Admission . . . . . 7
    Referral Procedures . . . . . 7
    Evaluation of Children . . . . . 8
    The Team Approach to Assessment and Program Planning . . . . . 8
  Staffing Patterns . . . . . 9
    Ancillary Personnel . . . . . 12
  Support Requirements . . . . . 12
    Dissemination and Case Finding . . . . . 12
    Administration and Supervision . . . . . 13
    Environmental Factors . . . . . 13

Chapter 3: Pilot Study and Project Validation . . . . . 15
    Objective 1 . . . . . 15
    Objective 2 . . . . . 15
  Instructional Program Evaluation Strategy . . . . . 18
  The Validation Team Report . . . . . 18

SECTION II: FIELD TESTING INTERVENTION STRATEGIES

Chapter 4: The Demonstration-Developer Grant . . . . . 19
  Grant Objectives . . . . . 19
  Constraints to Field Testing Activities . . . . . 19
    Time . . . . . 19
    Controls . . . . . 20

Chapter 5: A Review of Related Literature . . . . . 21
  The Impact of Blindness on Family and Child . . . . . 21
    Parental Denial of Handicap . . . . . 21
    The Effect of Sensory Impairment (Blindness) . . . . . 22

Page

Chapter 5: A Review of Related Literature (continued)

Development of Perceptual Constancies. . . . . . . . . . . . . . . . . . . . . . 22
Blindness Understood in the Context of Interaction . . . . . . . . . . 22
Importance of Early Intervention . . . . . . . . . . . . . . . . . . . . . . . 24
A Theoretical Approach to Individualization for Learning in Early Childhood Education . . . . . . . . . . . . . . . . . . . . . . . . . . . . 24
Major Developmental Theories . . . . . . . . . . . . . . . . . . . . . . . . . 24
The Six-Area Framework - A Humanistic Approach to Child Study. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 28
Early Childhood Education. . . . . . . . . . . . . . . . . . . . . . . . . . . . 30
Language Development Intervention. . . . . . . . . . . . . . . . . . . . . . 31
Theoretical Approaches . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 31
Language Acquisition: Stages and Patterns . . . . . . . . . . . . . . . . 33
First Word Stage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 33
Toddlerhood. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 33
The Four- and Five-Year-Old. . . . . . . . . . . . . . . . . . . . . . . . . 34
Language: Environment and Experience. . . . . . . . . . . . . . . . . . . 35
Language Stimulation: Motivation and Affect . . . . . . . . . . . . . . 38
Language and Imitation . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 40
Language and Cognition . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 41
Language Development Programs. . . . . . . . . . . . . . . . . . . . . . . . 42
Interaction Patterns . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 43
Prestructuring . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 43
Degree of Uniformity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 44
Types of Teacher Guides. . . . . . . . . . . . . . . . . . . . . . . . . . . . 44
Child Development Program Models . . . . . . . . . . . . . . . . . . . . . . 46
Model $A_1$: Bank Street Program . . . . . . . . . . . . . . . . . . . . . 46
Model $A_2$: Education Development Center. . . . . . . . . . . . . . . 46
Model B: Responsive Environment Model . . . . . . . . . . . . . . . . . 47
Model C: Verbal Cognitive Model . . . . . . . . . . . . . . . . . . . . . . 47
Model D: Sensory Cognitive Model. . . . . . . . . . . . . . . . . . . . . 48
Model $E_1$: The Engelmann-Becker Model. . . . . . . . . . . . . . . . 48
Model $E_2$: Behavior Analysis Model . . . . . . . . . . . . . . . . . . . 49

Chapter 6: Methodology. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 51
Subjects & Instrumentation . . . . . . . . . . . . . . . . . . . . . . . . . . . 51
Checklists Used to Assess Developmental Levels . . . . . . . . . . . 52
Intervention Objectives. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 54
Treatment of Data. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 55
Assessment of Language . . . . . . . . . . . . . . . . . . . . . . . . . . . . 55

Chapter 7: Results and Discussion . . . . . . . . . . . . . . . . . . . . . . 57
Developmental Checklists . . . . . . . . . . . . . . . . . . . . . . . . . . . . 57
Pre-academic Behaviors and Skills Checklist. . . . . . . . . . . . . . . 57
Self-Concept . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 63
Objectives (Birth to Three Years). . . . . . . . . . . . . . . . . . . . . . . 63
Objectives (Three Years to School Readiness) . . . . . . . . . . . . . . 64
Language Development Vocabulary Inventory. . . . . . . . . . . . . . . 70
Language Development Checklists D, E, F. . . . . . . . . . . . . . . . . 70
Language Development Objectives. . . . . . . . . . . . . . . . . . . . . . . 72
Implications of the Study. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 74

Bibliography . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 77

Page

SECTION III: SUGGESTED STRATEGIES FOR EARLY INTERVENTION

Assessment. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 87
  The Developmental Checklists. . . . . . . . . . . . . . . . . . . . 87
    Revised Developmental Checklist . . . . . . . . . . . . . . . . . 89
    Pre-academic Checklist of Behaviors and Skills. . . . . . . . . . 111
    Language Development Inventory . . . . . . . . . . . . . . . . . 123
  Self-Concept Development. . . . . . . . . . . . . . . . . . . . . . 127
    Definition and Description of Self-Concept. . . . . . . . . . . . 127
    Promoting Healthy Self-Concept in Children. . . . . . . . . . . . 127
    Interfering with Healthy Self-Concept in Children . . . . . . . . 127
    The Assessment of Self-Concept in Children. . . . . . . . . . . . 128

Motor Development

  Infant Reflexive Movement . . . . . . . . . . . . . . . . . . . . . 129
  Early Intervention. . . . . . . . . . . . . . . . . . . . . . . . . 135
    Gross Motor . . . . . . . . . . . . . . . . . . . . . . . . . . . 135
    Fine Motor. . . . . . . . . . . . . . . . . . . . . . . . . . . . 141
  Physical Education. . . . . . . . . . . . . . . . . . . . . . . . . 143
  Definition of Terms . . . . . . . . . . . . . . . . . . . . . . . . 148

Language Development

  Sample Format (Individual Language Development Vocabulary Inventory and Phoneme Acquisition) . . . . . . . . . . . . . . . . . . . 152
  Suggested Vocabulary. . . . . . . . . . . . . . . . . . . . . . . . 153
  Daily Log . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 156
  Format I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 157
    Rationale . . . . . . . . . . . . . . . . . . . . . . . . . . . . 157
    Suggested Materials . . . . . . . . . . . . . . . . . . . . . . . 157
    Suggested Activities. . . . . . . . . . . . . . . . . . . . . . . 159
  Format II . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 175
    Receptive Language. . . . . . . . . . . . . . . . . . . . . . . . 175
    Imitative Language. . . . . . . . . . . . . . . . . . . . . . . . 181
    Expressive Language . . . . . . . . . . . . . . . . . . . . . . . 187
    Integrated Expressive Language. . . . . . . . . . . . . . . . . . 193
    Specific Concepts and Constructs. . . . . . . . . . . . . . . . . 195
    Total Process . . . . . . . . . . . . . . . . . . . . . . . . . . 209
  Language Development Glossary of Terms. . . . . . . . . . . . . . . 216

Sensory/Perceptual Development

  Early Sensory Stimulation . . . . . . . . . . . . . . . . . . . . . 219
  The Importance of Early Stimulation & Motion. . . . . . . . . . . . 219
    Kinesthetic/Vestibular Stimulation. . . . . . . . . . . . . . . . 220
  Auditory Discrimination . . . . . . . . . . . . . . . . . . . . . . 223
  Visual Efficiency - A Continuum . . . . . . . . . . . . . . . . . . 227
    Visual Efficiency in Infants. . . . . . . . . . . . . . . . . . . 227
    Visual Efficiency in Children (Preschool to Adolescence). . . . . 229
    Screening for Visual Abnormalities. . . . . . . . . . . . . . . . 229
    Implications. . . . . . . . . . . . . . . . . . . . . . . . . . . 230
    Visual Development In Infancy . . . . . . . . . . . . . . . . . . 232
  Vision Training . . . . . . . . . . . . . . . . . . . . . . . . . . 235
  Vision Stimulation. . . . . . . . . . . . . . . . . . . . . . . . . 240
  Tactual Awareness . . . . . . . . . . . . . . . . . . . . . . . . . 251

Page

Sensory/Perceptual Development (continued)

Pre-Braille Readiness. . . . . . . . . . . . . . . . . . . . . . . . . . . 261
Sensorimotor Development . . . . . . . . . . . . . . . . . . . . . . . . . 267

Self and Social Awareness

Physical and Emotional Bases of Behavior . . . . . . . . . . . . . . . . . 277
Daily Living Skills - Early Intervention . . . . . . . . . . . . . . . . . 282
Body Awareness . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 287
Social Education and Citizenship . . . . . . . . . . . . . . . . . . . . . 301

Cognitive/Creativity

Preschool Developmental. . . . . . . . . . . . . . . . . . . . . . . . . . 309
Language Arts. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 321
Mathematics. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 331
Science. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 347
Social Studies . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 357
Art. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 365
Music. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 371

Social Services

Counseling and Parent Education. . . . . . . . . . . . . . . . . . . . . . 377
Your Child As A Person . . . . . . . . . . . . . . . . . . . . . . . . . . 383

## tables

Page

1. Services and Population. . . . . . . . . . . . . . . . . . . . . . . . . . 15

2. Adult Participation. . . . . . . . . . . . . . . . . . . . . . . . . . . 16

3. Analyses of Results. . . . . . . . . . . . . . . . . . . . . . . . . . . 16

4. Instructional Objectives . . . . . . . . . . . . . . . . . . . . . . . . 17

5. Sequence of Language Development . . . . . . . . . . . . . . . . . . . . 34

6. Language and Speech Development. . . . . . . . . . . . . . . . . . . . . 36

7. Incidence of Eye Conditions Reported in This Study. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 53

8. Combined Checklists A & B. . . . . . . . . . . . . . . . . . . . . . . . 58

9. Summary Results for Preacademic Checklists of Behaviors and Skills . . . . . . . . . . . . . . . . . . . . . . . . . 61

10. Self-Concept . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 62

11. Mean Percentage of Objectives Accomplished . . . . . . . . . . . . . . . . 63

12. Instructional Objectives, Three Years - School Readiness. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 65

13. Language Development Vocabulary Inventory Results. . . . . . . . . . . . . 70

14. Language Development Checklist Results . . . . . . . . . . . . . . . . . . 71

15. Summary Results of Language Development Objectives Analyses for Blind and Combined Sighted and Legally Blind Children . . . . . . . . . . . . . . . . . . . . . . . . 73

16. Infantile Reflexive Behavior . . . . . . . . . . . . . . . . . . . . . . . 129

17. Visual Behavior in Infancy . . . . . . . . . . . . . . . . . . . . . . . . 231

## charts

1. Vision Services. . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6

2. Learning Center Staff. . . . . . . . . . . . . . . . . . . . . . . . . . . 10

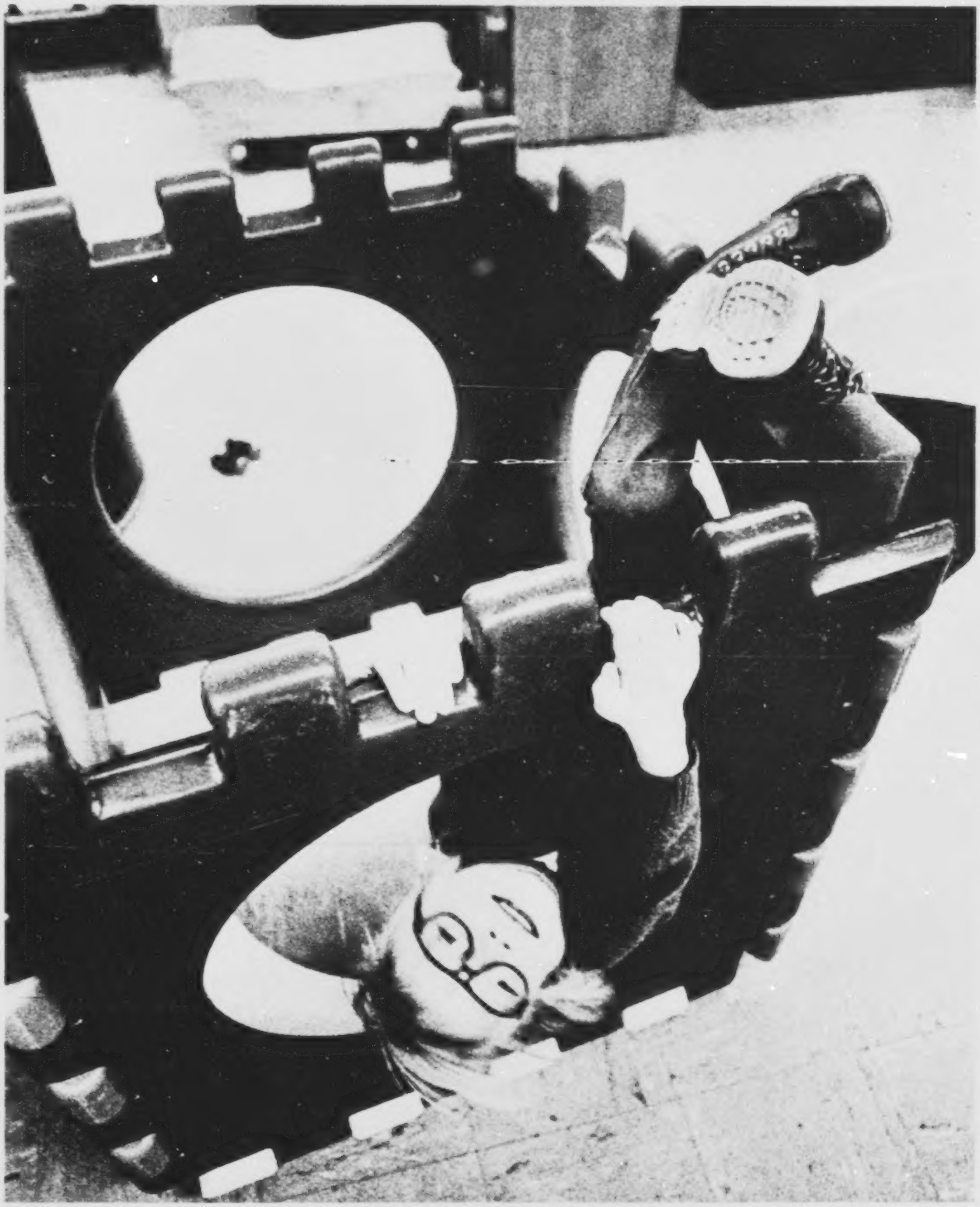
3. Language Development Objectives. . . . . . . . . . . . . . . . . . . . . . 151

charts (continued)

Page
4. Sensorimotor-Language Development. . . . . . . . . . . . . . . . . . . . 218
5. Educational Techniques: Body Awareness. . . . . . . . . . . . . . . . . . . 289
6. Daily Schedule: Minimum Behavior Analysis . . . . . . . . . . . . . . . . . 312
7. Social Services. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 378

appendices

A. Environmental Factors. . . . . . . . . . . . . . . . . . . . . . . . . . . 386
B. Validation Study Materials . . . . . . . . . . . . . . . . . . . . . . . . 406
C. Selected Early Childhood Programs. . . . . . . . . . . . . . . . . . . . . 412
Language Development: Assessment and Materials
D. Incidence of Visual Disorders. . . . . . . . . . . . . . . . . . . . . . . 432
The Eye Report Shows the Way



# developing the model

# 1 introduction

## Purpose of This Document

In July 1971, ESEA, Title III, funded an Early Childhood Program of Services for Visually Impaired Children (from birth to school readiness), for a three year period. Three years later in April of 1974, an out-of-state team validated the funded project according to guidelines furnished by the U.S. Office of Education. The following July this Montgomery County Public Schools program received the Educational Pacesetter Award from the President's National Advisory Council on Supplementary Centers and Services. An Excellence in Education Award from the National Association of State Advisory Council Chairmen followed in December. As a result, this model of services has become available for replication in other areas of the country. When federal support ended on July 1, 1974, the Montgomery County Board of Education assumed funding of all project components.

Title III officials granted fourth and fifth year Demonstration-Developer grants so that other educators would not have to engage in similar endeavors to replicate this model or any part of it, or have to develop a suitable instructional program for this population and their parents. They provided funds for field testing intervention strategies, for conducting teacher training workshops, and for utilization of the Montgomery County Learning Center as a national demonstration site.

The Project Director and vision staff of this Maryland program reviewed, adapted, compiled, or developed numerous resources to define and deliver a humanistic, developmental approach to early childhood intervention. Special definition for visually impaired children and their parents is incorporated throughout.

This document provides a resource for teachers and administrators which will give direction for establishing and implementing these services and provides suggested field tested strategies for intervention with young children and support services for parents.

THIS MANUAL CANNOT BE A COOKBOOK CURRICULUM DUE TO THE SPECIAL NEEDS OF SOME CHILDREN WHO MAY HAVE INCONSISTENT OR DELAYED DEVELOPMENTAL PATTERNS. IT IS INTENDED ONLY AS A RESOURCE FOR TEACHERS AND OTHERS NEEDING ASSISTANCE WITH DEVELOPMENTAL ASSESSMENT AND PROGRAM DEFINITION.

## Background

As the literature increasingly showed evidence of need for early intervention and support services for very young visually impaired children and their parents, professional awareness and acceptance of this need began to generate ever widening interest in developing services.

A review of entering enrollment in the Vision Services Program in Montgomery County for each of the previous 10 years showed that this target population exists. An average of four to six visually impaired children entered kindergarten each year, indicating a possible early childhood population of 25 to 30 children from birth to five years of age. Multihandicapped visually impaired children were not included in that survey. Of the total Montgomery County public school population of about 125,000 in 1974, approximately 8,502 attended kindergarten.

This model of services evolved during three years of research, observation, consultation, and planning. The original proposal provided for a preschool laboratory program for visually handicapped children, ages three to five, designed to be consistent with the existing early childhood laboratory programs in Montgomery County high schools. Staff carefully studied and adapted Board of Education approved curricula and all available outside resources. Failure to receive funding from the Bureau of Education of the Handicapped, U.S. Office of Education, stimulated us to discard this approach and to develop the current model designed to deliver the comprehensive services needed from birth to school readiness.

This proposal was funded by ESEA Title III of 1965, for a period of three years, July 1, 1971--June 30, 1974. On July 1, 1974, the Montgomery County Board of Education assumed funding of all staff and program components to be a part of ongoing services of the Vision program.

During the planning and beginning operational period from July 1, 1971, to June 30, 1972, key staff were employed and two classrooms at Rock Creek Palisades Elementary School were remodeled and furnished to provide the Learning Center offices and classrooms. Project staff researched and obtained instructional and administrative materials and equipment, and began home teaching and counseling for 10 identified children and their parents. The staff initiated demonstration teaching and consultative services for private schools enrolling preschool visually impaired children, i.e., the Center for the Handicapped and one Montessori school. The project director, a vision teacher, a teacher aide, and the program social worker provided these services.

In September 1972, the first Learning Center pre-academic class opened for children two and one-half to five years old; home and private school teaching and parent counseling continued. In February 1973, an afternoon class for multihandicapped visually impaired children was added. The five children enrolled had no language, but audiological examination showed them having enough hearing for language, so a language development early childhood teacher was assigned to define their individualized programs and to teach them. She was assisted by the vision teacher.

From September 1973 to 1976, both classes have met in the morning, with the pre-academic group attending until 1:30 p.m. every day except Wednesday. The Learning Center team meeting and/or total vision staff meetings are held on Wednesday afternoons.

## Critical Needs

The original project design contained a statement of these critical needs and the plans to meet them.

1. Many visually handicapped children do not acquire the basic skills necessary to

function in today's society, particularly in view of rising social and economic expectations for both individuals and groups. Therefore, a critical need exists to help youth acquire and use basic skills.

It has been suggested that early experience may be even more important for the perceptual, cognitive, and intellectual functions than it is for emotional and temperamental functions (Barraga, 1964).

The blind child does not compensate automatically for his blindness by overdevelopment of the other senses. Compensation can be accomplished only by systematic education of those senses which remain relatively unstimulated and underdeveloped in the sighted because of the utility and adequacy of visual experience (Cutsforth, 1933).

To solve these and other critical needs coincident with those delineated in the Title III guidelines, this project provides an intensive developmental program in which language development, motor development, self and social awareness, sensory training, and cognitive-creativity development are emphasized.

2. A critical need exists to design programs which will offset the low self-concept of students and, indeed, build a strong positive self-image.

It has long been apparent to teachers of young blind children that an adequate self-concept, personal adjustment, and the necessary concrete knowledge of their environment is lacking; consequently they are socially retarded. This is especially true of those who are blind before one year of age. The reasons for this lie in the home environment and the experiences of the severely visually handicapped child from birth to age five. The meaning of blindness to the sighted members of a blind child's family and their attitudes toward him and his handicap will determine his acceptance of himself as a complete and able personality. These attitudes begin to operate as soon as the handicap is recognized. Long before blind children can have any understanding of family behavior toward them, they begin to use it to their own advantage or let it work to their disadvantage, as their needs may dictate. Their ability to make use of what the schools have to offer will depend, to a great extent, upon these early patterns of response that they have selected for themselves. Early childhood experiences are, therefore, regarded as essential determinants of the future reaction patterns of an individual.

Dr. Kathryn Maxfield, in her work with preschool blind, and Dr. Berthold Lowenfeld, in relation to adolescents and adults, have pointed up the need for early counseling and instruction to parents and children, in which they can be led to an acceptance and understanding of the realities of blindness and the effects of its emotional impact upon themselves. Serious personality damage, social retardation, and low level of readiness for learning can be prevented by such intervention (Zahl, 1962).

One solution to these problems is early developmental assessment and intervention with young visually impaired children and the establishment of parent seminar groups meeting regularly under the leadership of professional education, medical, and social service staff. The value of group experience and orientation, the need for basic developmental concepts for dealing with the environment, and the necessity for parent counseling and instruction cannot be overstated in the case of visually impaired children. Too often at five years of age, those who are blind or who have severely restricted vision come understimulated, fearful, without group experiences of any kind, and with very limited individual learning experience and skills to a kindergarten room full of lively, sighted children. Because more than 80 percent of a child's school work is believed to be visual (Pelone, 1957), this room is almost totally visually oriented. Consequently, except for long overdue socialization with sighted peers, the blind child may derive little gain in this setting.

To support development of a positive self-concept by the visually impaired child, parents are counseled by project staff to form realistic expectations for their children and are trained to use appropriate educational methods to teach them during early developmental stages.

3. Because a full life in American society requires a reasonably high level of vocational, consumer, and economic competencies, a critical need exists to develop attitudes and skills which enable young people to choose a vocation wisely and to develop an economic orientation which permits them to become discriminating consumers. The results of large-scale early childhood programs have shown that developmental lag in sighted (unimpaired) children is hard to remedy.

   In this fast-paced competitive society it has been and will continue to be extremely difficult for visually impaired children to overcome the developmental cumulative lag with which they enter school. It, in fact, becomes greater as they struggle to compete even with those peers who have levels of ability comparable to their own. Thus, it is critically important that educational intervention begin as early as possible, including counseling of parents and teaching them how to stimulate the cognitive and physical development of their handicapped children. If the child is to become a fully functioning, independent adult, the responsibility for educating the whole child must be shared by educators and parents from early infancy.

4. A critical need exists to develop educational programs which will take into account problems of physical and mental health and attempt to offset them.

   When children have no outside sources of stimulation, they will seek stimulation from their own bodies. Visually impaired youngsters who are confined excessively to beds or playpens, when they should be on the floor exploring and learning to crawl and then to walk and move about, will stimulate themselves by exploring their own bodies. Peculiar habits of grimacing, unusual postures, weird habits called blindisms, and excessive auto-stimulation may result. Such children are unacceptable to a sighted group, and their lack of readiness for group experiences at age five is understandable. Peer rejection and their own inability to cope with the situation or to bridge the experiential gap are indeed destructive to their mental health and any feeling of self-worth they might have had.

5. Curiosity and inquisitiveness are fundamental attributes of the young child and will remain important characteristics unless diminished by lack of opportunity to "experience" his world or blunted by environmental circumstances. Therefore, a critical need exists for the development of programs which foster curiosity and maintain the desire to learn among all children.

   This proposal was designed to demonstrate methods by which early education can be provided to visually impaired children before the effects of sensory and social deprivation become acute.

   Parents of very young children and teachers of preschool classes of sighted children are instructed in appropriate educational techniques for utilizing curiosity and inquisitiveness to develop independence in the visually impaired child.

6. Innovative programs for handicapped children have been identified as an essential part of Title III on a national level. Critical educational need exists for the development of innovative educational programs for handicapped children.

   The critical needs of young handicapped children have been described extensively in professional literature. Study of the specific problems of older visually impaired children who, before their formal schooling began, had acquired socially unacceptable habits and only limited means of acquiring knowledge needed for normal living has underscored the need for early intervention for this population.

   Parents of handicapped children have been a neglected segment of society. They have had to search endlessly for services which could benefit their child. The services usually available have been limited historically to state schools and those provided by family physicians. In addition to the heartbreak of sending young children away from home, parents have been frustrated further by the fact that even state schools generally provide services only for school-age children. The situation has been a matter of too little, too late.

   Montgomery County sought funds from Title III to initiate this innovative project to provide support and instruction to the parents from the crisis stage when they learn that their child is visually impaired through the subsequent stages of their attitudinal development, to provide stimulation and training for visually impaired infants and young children, and to thus prevent experiential and conceptual deficits, isolation, and other problems.

## Project Objectives Derived From Study of Needs

1. To provide service, both itinerant and classroom, for visually impaired children from birth to academic readiness (or eight years of age) and for their parents (critical needs 1, 3, 6)

2. To instruct and to demonstrate to parents, social workers, and teachers of regular preschool classes who enroll visually impaired children educational techniques designed to foster growth toward personal independence (critical needs 1, 4, 5, 6)

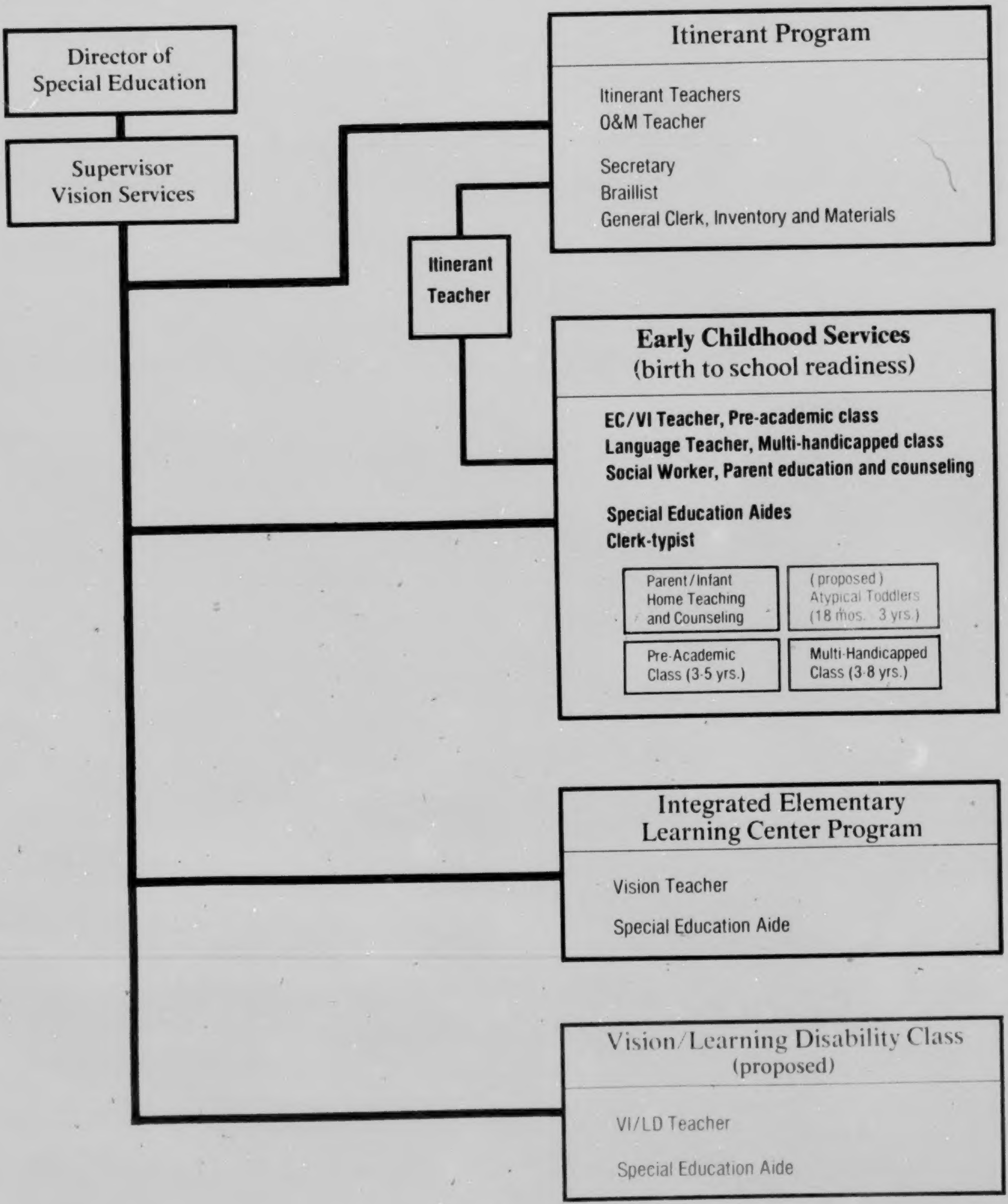
3. To establish procedures by which medical personnel and social service agencies will refer visually impaired children for educational services (critical need 6)

4. To support the growth of an adequate self-concept by developing competencies in daily living skills and in language development, and to motivate and teach severely visually impaired children to explore and move independently in their surroundings (critical needs 2, 5, 6)

5. To discover and devise evaluative techniques, and to produce instruments for effective teaching and measurement of developmental, sensory, social, and emotional growth in the child (critical needs 1, 2, 4, 5, 6)

Chart 1

# Vision Services


Director of Special Education
Supervisor Vision Services
Itinerant Program
Itinerant Teachers
O&M Teacher
Secretary
Braillist
General Clerk, Inventory and Materials
Itinerant Teacher
Early Childhood Services (birth to school readiness)
EC/VI Teacher, Pre-academic class
Language Teacher, Multi-handicapped class
Social Worker, Parent education and counseling
Special Education Aides
Clerk-typist
Parent/Infant Home Teaching and Counseling
(proposed) Atypical Toddlers (18 mos. 3 yrs.)
Pre-Academic Class (3-5 yrs.)
Multi-Handicapped Class (3-8 yrs.)
Integrated Elementary Learning Center Program
Vision Teacher
Special Education Aide
Vision/Learning Disability Class (proposed)
VI/LD Teacher
Special Education Aide

# 2 design of program

## Service Components

### PARENT-INFANT INTERVENTION

Demonstration home teaching and parent counseling for children from birth to about two and one-half to three years of age and their parents is provided by a teacher of the visually impaired and the program social worker.

### LEARNING CENTER CLASSES

#### Pre-academic

A teacher trained in early childhood education and education of the visually impaired implements a program for those children (age three to academic readiness) who are ready for group experience and for beginning readiness activities. Several fully sighted children are enrolled in keeping with the vision program philosophy that children with impaired vision should not be isolated from their sighted peers.

#### Language Development/Multihandicapped

Multihandicapped, visually impaired children, three to eight years old, participate in an experience-oriented program implemented by a language development specialist and a vision teacher.

Consultative support and demonstration teaching are provided to private centers enrolling young visually impaired children, e.g., The Center for the Handicapped.

A proposed learning center class for atypical or developmentally delayed children from 18 months to 3 years old (and their parents) has not yet been funded.

## Criteria for Admission

Children whose vision is judged to be sufficiently impaired that with best correction it may interfere with their successful functioning in school or in their environment should be referred for evaluation.

### REFERRAL PROCEDURES

Any person or agency may refer children directly to the Learning Center office. Due to the low incidence of this impairment and to the lack of public awareness about early intervention programs, an extensive outreach effort is made to identify these children. The Vision Services supervisor coordinates the following activities subsequent to each referral:

- Telephone contact with parent to make appointment for home visit
- Home visits by supervisor and/or program social worker
- Obtaining of medical reports from pediatrician, ophthalmologist, and other specialists
- School conference with parents and the staff team
- If eligible for Learning Center placement, children visit the class while parents and supervisor or vision teacher watch from observation booth to discuss program
- Arrangement for transportation and admission date
- If children qualify for home teaching (birth to three years of age), services are defined and a schedule arranged.

## EVALUATION OF CHILDREN

Upon entrance into the program, each student has been evaluated to determine functional levels in the following major areas: (1) psychological, (2) hearing, (3) vision, (4) physical, (5) social, (6) developmental, and (7) educational.

Hearing, vision, and physical examinations are either provided by private physicians or local agencies specializing in such services. The other evaluations are conducted onsite by the staff, specialists, teachers, or consultants. These include the following: eye medical report form developed by project staff (completed by a physician); Visual Efficiency Scale by Dr. Natalie Barraga (administered by vision teacher); Cumulative Record of Visual Functioning of Children and Youth with Severe Visual Impairment by Kathryn F. Gruber (recorded by vision teacher); School Health Form (completed by pediatrician); Developmental Checklist (administered by staff); Learning Center Developmental Checklist of Behaviors and Skills (recorded by staff); Bolea Pictorial Self-Concept Scale by Dr. Andre Bolea (enlarged and used with partially sighted children); Boehm Test of Basic Concepts (administered by staff); case studies and anecdotal records (written by all project staff); Pupil Status Report (developed to provide a picture of the child as viewed by the teacher, and used by all vision teachers for children from time of entrance in the Learning Center program through Grade 12); Social and Developmental History (continually revised to show current information and completed by project social worker); Psychological Evaluation (prepared by Dr. Mary K. Bauman, Nevil Interagency Referral Service, Philadelphia, Pennsylvania, using appropriate standardized measures, parent and teacher interviews, observations, and interaction with each child); Hearing Evaluation (made at the Easter Seal Treatment Center or the Montgomery County Health Department); Learning Development - Communication Vocabulary Inventory; Braille Readiness Assessment and Training, using the Ina Kurzhal materials (administered and implemented by vision teacher); and Educational Assessment (diagnostic and prescriptive assessment made by members of project staff).

## THE TEAM APPROACH TO ASSESSMENT AND PROGRAM PLANNING

The multidisciplinary approach to assessment has meant traditionally that a series of persons on the team each looked at a child independently and passed comments on to one coordinator. Critics of this method claim that such information is fragmented and cannot provide an accurate or coherent picture of the child.

In the interdisciplinary model, a group of persons with different backgrounds, i.e., medical, psychological, and educational--each look at the child or information about him. Recommendations are made at a subsequent staffing. The problem is one of accountability when there are no available programs, resources, or staff to carry out the recommendations. Such efforts are futile without follow-through.

A transdisciplinary team approach has been suggested with an educator as chairman who will be responsible for actually providing the needed services. Team members represent many disciplines, ensuring adequate background to define developmental level and needs of the children. The educator, especially the classroom teacher, has the final responsibility for delivering a prescriptive program to each child. Success of this plan depends on the willingness of team members to share and work cooperatively. The strength of this concept lies in the mandate for follow-through which is the responsibility of the educator.

Members of the Learning Center staff must be committed to work as a team and to communicate with colleagues or delivery of services to children will deteriorate. It is essential that the different roles and expertise be respected and utilized with one motivation--the welfare and development of all children and their families.

## Staffing Patterns

The staffing patterns suggested here are flexible and have undergone change as the Montgomery County model developed.

One example is the use of paraprofessional personnel to implement early training and stimulation at home. Variously called teacher assistants or infant technicians, these staff members should have at least two years of college with 12 hours in child development and experience in working with very young children, both normal and impaired.

In-service training in the following areas is essential for all staff:

Sensorimotor development including Motor development, Anatomy and physiology of the eye, The ear and hearing

Pre-natal growth

Parent reaction to handicap

Observation techniques and reporting procedures

Assessment of children

Strategies for developmental intervention

Ongoing in-service training

Chart 2

## Learning Center Staff

| | Minimum Training and Certification | Additional Training or Skills Desirable | Years Experience Desired | Responsibilities |
|---|---|---|---|---|
| PROFESSIONAL | | | | |
| Supervisor<br>Project Director | Ph.D. in Human Development<br>M.Ed. Elementary Ed.<br>Certification in Vision; Counseling; Administration; Supervision | Special Education or Early Childhood<br>Training in Counseling and Social Services | 5 yrs.: regular elementary classroom teacher<br>5 yrs.: teacher of visually impaired<br>5 yrs.: administration | Administration, supervision, and evaluation of all project activities, staff, and services |
| Early Childhood--Vision Teacher | M.Ed. Early Childhood and Vision<br>Certification in Early Childhood and Vision | Diagnostic-Prescriptive Methods for Young Children<br>Techniques in Developmental Assessment and Program Development<br>Parent Counseling and Intervention<br>Orientation and Mobility (6 hours) | 2 yrs.: early childhood-vision teacher and/or an equivalent supervised practicum | Implementation of developmental assessment of each child and the instructional program for pre-academic class (3 years to school readiness). Other duties as required by supervisor and building principal |
| Language Development Teacher | M.A. Speech and Language Development<br>Certification in Language Development | Basic courses (12 hours) in Education of Visually Impaired, i.e., Anatomy and Physiology of the Eye<br>Parent Counseling and Intervention<br>Orientation and Mobility (6 hours) | 5 yrs.: language development teacher<br>3 yrs.: language development teacher for handicapped children | Implementation of developmental assessment of each child and instructional program for language development (multihandicapped) class. Other duties as required by supervisor and building principal |
| Teacher for Atypical-Developmentally Delayed Children (18 months to 3 years)<br>(PROPOSED CLASS - NOT YET FUNDED) | M.Ed. Learning Disability/ Early Childhood<br>Certification in Vision | Parent Counseling and Intervention (6 hours) | 3 yrs.: kindergarten or 1st grade teacher<br>2 yrs.: early intervention for atypical children | Implementation of developmental assessment of each child and instructional program for atypical-developmentally delayed children (18 months-3 years). Other duties as required by supervisor and building principal |
| One Itinerant Vision Teacher | M.Ed. Vision<br>Certification in Deaf-Blind Education and Elementary Education | Diagnostic-Prescriptive Methods for Young Children<br>Techniques in Developmental Assessment and Program Development<br>Parent Counseling and Intervention<br>Orientation and Mobility (6 hours) | 2 yrs.: regular pre-school--kindergarten teacher<br>2 yrs.: vision teacher with multihandicapped visually impaired children | On half-time basis: Provide one-to-one intervention for children in language development (multihandicapped) class. Provide home teaching for infants (birth to 3 years).<br>On half-time basis: Serve itinerant caseload (K-12) |

|  | Minimum Training and Certification | Additional Training or Skills Desirable | Years Experience Desired | Responsibilities |
|---|---|---|---|---|
| One Itinerant Vision Teacher | M.Ed. Vision<br>Certification in Elementary Education | Diagnostic-Prescriptive Methods for Young Children<br>Techniques in Developmental Assessment and Program Development<br>Parent Counseling and Intervention<br>Orientation and Mobility (6 hours) | 2 yrs: elementary level vision teacher<br>2 yrs.: vision teacher for developmentally delayed children | On half-time basis: Provide one-to-one intervention for children in pre-academic class, i.e., braille readiness, vision stimulation. Provide consultative/demonstration teaching for private and special schools enrolling visually impaired children.<br>On half-time basis: Serve itinerant caseload (K-12) |
| Social Worker | MSW, ACSW | Courses in Group Counseling<br>Behavior Management<br>Physiology of Visual Impairments<br>Implications of Impairment | 5 yrs.: social work and counseling | Implement social services program, including parent counseling and education seminars; case finding; coordination of other social services needed by families. |
| SUPPORTING SERVICES |  |  |  |  |
| Special Education Aides | 2 years college | Child Development (6 hrs.)<br>Early Childhood Intervention (6 hrs.) | 2 yrs.: early intervention | Teacher assistants in all phases of instructional program |
| Clerk-Typist or Secretary | Secretarial skills | Special Education Experience, i.e., program policy, budget, transportation | 3 yrs.: special education | Secretarial and clerical functions for all staff; i.e. typing reports, case studies, assessments, purchase orders, payroll; receptionist for parents and visitors; coordination of transportation for children, follow-through on related problems. Other duties as required by supervisor |

Severe visual impairment is a low incidence disability, and at least half of the population served have multihandicaps. For these reasons, it has been preferable to have trained vision staff implement the home intervention. In centers serving developmentally delayed children who represent many impairments and whose enrollment is large, it may be necessary to utilize paraprofessionals more widely. With adequate background, experience, in-service training, and supportive supervision, this staffing plan is acceptable.

### ANCILLARY PERSONNEL

Regular school personnel providing direct services to Learning Center children are:

Kindergarten teachers
Librarian
Music teacher
Physical education instructor
School guidance counselor
Speech therapist

Health services personnel providing consultation and support services to staff, parents, and children:

Occupational therapist
Physical therapist
School medical advisor
School nurse
Eye clinics in area hospitals
Private ophthalmologists and optometrists

## Support Requirements

### DISSEMINATION AND CASE FINDING

The following methods of dissemination and case finding have been used:

1. Information item about the program sent to local Board of Education which receives wide attention and newspaper coverage.

2. Program brochure sent to the following local agencies:

   250 ophthalmologists and pediatricians in Montgomery County and Washington, D. C.
   146 Montgomery County public school elementary school PTA newsletters
   36 County social service agencies
   30 Private and parochial schools
   10 Directors of Department of Social Services in the following:

      Children's Hospital, Washington, D. C.
      Washington Hospital Center, Washington, D. C.

Suburban Hospital, Bethesda, Maryland
Holy Cross Hospital, Silver Spring, Maryland
Georgetown University Hospital, Washington, D. C.
George Washington University Hospital, Washington, D. C.
National Institutes of Health, Bethesda, Maryland
Naval Hospital, Bethesda, Maryland
Walter Reed Army Hospital, Washington, D. C.
Montgomery County Medical Society, Wheaton, Maryland
Columbia Lighthouse for the Blind, Washington, D. C.
Lions Clubs, Montgomery County

3. Presentations to school and community groups

4. Spot announcements over local radio stations

5. Specific responses to inquiries from 40 states, 4 foreign countries, universities, and private agencies

6. Program description prepared for distribution to all rural and urban communities, as requested by the U. S. Office of Education

7. Publication of an article describing the program model in The New Outlook for the Blind published by the American Foundation for the Blind

Dissemination efforts have been successful in that they have resulted in wide-spread support and interest in the project locally and nationally and they have effectively located candidates for the program. Nearly 800 persons have requested the document.

## ADMINISTRATION AND SUPERVISION

This Early Childhood Services Model for Visually Impaired Children provides the best time of entrance (birth) into the vision program. When children return to their neighborhood schools to enter kindergarten or first grade they are served by the itinerant teacher from the Learning Center. The children have made smooth transitions into the new school and the larger groups with this support. Administration and supervision of all services and staff are the responsibility of the Vision Services Program supervisor working under the direction of the department of special education.

## ENVIRONMENTAL FACTORS

The early childhood staff and learning center are located in four rooms at Rock Creek Palisades Elementary School. Two classrooms provide centers for the pre-academic and multihandicapped (language development) classes. One is used for the parent-infant education center and will be utilized for the proposed class for atypical or developmentally delayed children (18 months to 3 years old) when it is funded. The fourth has been partitioned into staff offices and meeting areas.

Lists of recommended administrative and instructional materials and equipment are included in Appendix A.

# 3 pilot study and project validation

A pilot study was done for the purpose of validating the project at the end of its third year. The U. S. Office of Education furnished validation guidelines which were followed implicitly, as directed.

The four global objectives derived from the study of critical needs proved to be educationally and statistically significant and were so reported in the study.

## OBJECTIVE 1

Comprehensive itinerant and classroom services were provided to visually impaired students, their families and teachers. Table 1 describes the major services and persons involved:

Table 1

Services and Population

| Nature of Service | Population Served During 1973-74 | | |
|---|---|---|---|
| | Students | Families | Teachers |
| Home teaching program | 8 | 10 | |
| Learning center: a.m. | 14 | | |
| Learning center: p.m. | 4 | | |
| Social work services | | 26 | |
| Resources to other classes/programs | 19 | 15 | 14 |
| Parent group meetings | | 300 | |
| Training sessions | | 80 | 10 |
| Unduplicated total* | 35 | 150 | 16 |

*Some of population received more than one service.

## OBJECTIVE 2

Parents, social workers and teachers received specialized training designed to foster the growth of visually impaired children toward personal independence. The tables which follow describe the participation of adult personnel and significant positive changes resulting from the programs.

## Table 2

## Adult Participation

| Special Programs | Unduplicated Enrollment | Total Attendance |
|---|---|---|
| Parent education course | 20 | 200 |
| Behavior modification course | 6 | 48 |
| Morning groups (7 meetings) | | 30 |
| Evening parent education program (7 meetings) | | 173 |
| Counseling interviews | 20 | |

Scheduling pattern for interviews

| | 2x mo. | 1x mo. | 1x 2 mo. | 1x 3 mo. |
|---|---|---|---|---|
| Initial | 10 | 8 | 1 | 1 |
| As of April 1974 | 1 | 9 | 2 | 4 |

## Table 3

## Analysis of Results

(1) Application of Methods Taught in Parent Education Classes

| | Many | Some | Few |
|---|---|---|---|
| Parent's Report | 4 | 9 | 1 |

(2) Expectations for Child

| Non-realistic | | Moderately Realistic | | Realistic | |
|---|---|---|---|---|---|
| Contact 1 | Contact 2 | Contact 1 | Contact 2 | Contact 1 | Contact 2 |
| 7 | 0 | 9 | 4 | 4 | 16 |

Statistical Procedure: Friedman two-way analysis of variance showed statistical significance at .05 level of confidence.

(3) Social Workers' Assessment of Problems and Concerns

| Many Present | | Moderate Number Present | | Few Present | |
|---|---|---|---|---|---|
| Initial | April '74 | Initial | April '74 | Initial | April '74 |
| 13 | 1 | 7 | 10 | 0 | 9 |

Statistical Procedure: Chi square rankings significant at .05 level of confidence.

Growth in areas of self-concept, daily living skills, language development and mobility was measured by developmental checklists and scales and recorded as pre and post data. Table 4 lists the areas, number of instructional objectives measured and level of improvement as of April 1974. (Statistical test used was chi-square: goodness of fit.)

Table 4

Instructional Objectives

| | | September | | April | | | |
|---|---|---|---|---|---|---|---|
| | Objectives Measures | Could | Could Not | Could | Could Not | $x^2$ | Actual Achievement |
| Auditory language (Home visits) | 13 | 7 | 6 | 13 | 0 | .67 | 100% |
| Auditory language (Classroom) | 36 | 17 | 19 | 36 | 0 | 2.11 | 100% |
| Body awareness | 100 | 19 | 91 | 103 | 7 | 5.01 | 93% |
| Braille readiness | 14 | 0 | 14 | 12 | 2 | .285 | 86% |
| Perceptual motor development | 121 | 0 | 121 | 116 | 5 | 3.85 | 98% |
| Physical education | 97 | 14 | 83 | 94 | 3 | 1.37 | 96.4% |
| Preschool developmental plan | 152 | 6 | 146 | 115 | 37 | 36.21 | 79% |
| Social education/ citizenship | 147 | 30 | 109 | 139 | 8 | 5.7 | 95.8% |
| Vision training (Home visits) | 13 | 9 | 4 | 13 | 0 | Sign test Supported H | 100% |
| Vision training (Classroom) | 43 | 30 | 13 | 43 | 0 | 3.33 | 100% |

Every student was measured on each of the instructional objectives appropriate for him, and emerging abilities were carefully tabulated. In addition to the statistical treatments of data, curriculum analyses and parent interviews were used to determine educational significance of gain scores.

Overall level obtained in 9 of 12 areas was above expectation. The Project Director and statistician determined that a criterion level of 85 percent should be set for attaining this goal. The actual level (average of 12 areas) was 87 percent.

## Instructional Program Evaluation Strategy

All children's developmental assessment is diagnostic and their educational management plan includes those objectives appropriate for the individual. The formula for determining what percentage of the objectives in each area has been achieved is: Instructional objectives x total number of children for whom they are appropriate = total number of objectives. Determination of the number of objectives accomplished compared to total objectives yields the percentage indication of program effectiveness.

The analysis of each instructional area includes the percentage of children achieving each objective, the percentage of objectives achieved by each child, the number of children achieving 100 percent, 90, 80, etc., of the objectives, and the percentage of total objectives achieved for each instructional area.

A chart of Instructional Objectives -- Summary of Findings and a sample Analysis of Achieved Objectives as completed for each area of instruction, i.e., art, body awareness, in addition to cost information reported in the study, are included in Appendix B.

## The Validation Team Report

The validation team members described their conclusions and recommendations in their official report, as follows:

> The validation team has only commendation for the Project Director and her staff. The scope of the project is both innovative and exemplary. Its design has not only met the needs of the children it was meant to serve but has also provided concrete and effective assistance to their parents. The development of materials, report forms, evaluation design and a curriculum document will greatly facilitate the exportability of the project.
>
> It has been remarkably timely in its creation. At the time it was initiated, mandatory legislation for the education of young handicapped children was non-existent. Today, Pennsylvania, Maryland and Virginia not only have the legislation but implementation must be accomplished in a short time. This project can provide the model needed for the delivery of services for all handicapping conditions.
>
> The one recommendation of the validation team is that the project be given national exposure.

The above recommendations resulted in a request by Title III personnel that intervention strategies be field tested nationally during the following year. Details of this activity describing the implementation of the Demonstration-Developer grant are included in Section II of this manual.

# field testing intervention strategies

# 4 the demonstration — developer grant

Because of the positive responses of the validation team to all phases of the project model and services and the priority given to early childhood education by the Maryland State Board of Education in April 1972, Title III members present at the validation conference suggested that a Demonstration-Developer grant application be prepared. All were concerned that the project be widely disseminated and that the defined instructional approaches be made available to adopters.

## Grant Objectives

- To field test curriculum materials prepared by staff
- To adapt additional materials
- To prepare a document(s) to be made available to sites adopting this model of services
- To serve as a national demonstration site
- To equip and implement a center for the language stimulation program adjacent to the present learning center

## Constraints to the Field Testing Activity

### TIME

The validation study was completed on April 25, 1974. Due to the, then, uncertain future of Title III at the national level, the subsequent grant could be made only for one year. Before the following September, student assessment booklets and teacher manuals had to be prepared and sites had to be found. Because blindness occurs on a low incidence level and so few preschool visually impaired children were identified or in programs, it seemed an impossible assignment. Time has remained a major constraint, although a second Demonstration-Developer grant was funded (July 1, 1975 - June 30, 1976) to complete the work.

## CONTROLS

The wide geographic distribution of children identified to participate in a large field testing effort in so short a time definitely contributed to less control over assessment and implementation of the intervention strategies. Although initial exploration contacts to each site were followed by visits to review materials with staff, the ideal situation would have been to use the first year for materials preparation and teacher training, the second for implementation, and the third for data collection, analysis, and preparation of the document.

# 5 a review of related literature

## The Impact of Blindness on Family and Child

In a discussion regarding some emotional issues in raising handicapped children, Poznanski (1973) posed the question: "Can the psychological limitations of handicapped youngsters be traced to the parenting process?" She points out the symbioses between handicap and "retardation," e.g.,

> blind children because of the understimulation of one entire sense, do not come close to achieving normal developmental rates--unless the mother is taught to stimulate the infant in nonvisual ways. (p. 322)

The quality of mothering during the early years shares responsibility with genetic cause for the severity of retardation in children with Down's Syndrome (Poznanski, 1973).

It is important to remember that, with the exception of people who have had personal contact or encounter with blindness, almost any new mother faces an overwhelming adjustment to the shock of giving birth to a defective child. This trauma is magnified many times over by the reactions of others in the environment of family, friends, and the larger community.

In one of the earliest studies of the emotional problems of the physically handicapped child, Allen and Pearson (1928) concluded that these disabilities affect personality development to the extent that the handicap affects the relationship between the parent and the child. They further observed that it is as essential to treat the relationship between child and parents and the attitude of the latter as it is to treat the disability itself.

Blank (1975) cited Fraiberg's (1973) major discovery in her work as the early subtle use of the blind baby's hands to indicate affect, wish and choice. Few mothers, unfortunately, know how to read these nonvisual cues and to provide tactile and auditory stimulation to a baby who seems to be inert, uninviting and unresponsive.

Fraiberg's earlier research (1971) stressed the urgency of the need to provide sustained support and guidance to the mother from the moment the baby's blindness is discovered.

### PARENTAL DENIAL OF HANDICAP

Studies have shown that after the initial shock, some parents deny that the handicap means a permanent loss. This hope that the child will "get better" or that "a cure will be found" may be a stage in parental growth and adjustment or it may be a lifelong attitude (Monbeck, 1973). Olshansky (1962) argued that some parental denial is necessary to ease the sorrow and may even be adaptive to some extent. Over time, however, it is generally believed to interfere with good medical management, i.e., neglect of needed eye and health examinations, and to delay or prevent psychological adaptation by both parents and child. Fotheringham and Creal (1974) suggest that parents may adopt the following coping strategies to deal with the stress:

> Reality testing in which the parents observe their child in a variety of situations and readjust their expectations accordingly;
>
> Correction through which efforts are made through education or corrective devices to minimize the disability;
>
> Isolation or withdrawal from any situation in which the child can be compared to others, i.e., overprotection;
>
> Extreme isolation is, of course, institutionalization

## THE EFFECT OF SENSORY IMPAIRMENT (BLINDNESS)

There is general agreement in the literature that sensory impairment alone, the ability to see or not to see per se, cannot be blamed for the psychosocial problems of many visually impaired children and adults. Nevertheless, there is overwhelming evidence that being born blind or with seriously restricted vision, historically and currently, carries with it an isolation from the environment that Klein calls "an assault on the function of the ego itself," (Ainsworth; 1969; Blank, 1975; Burlingham, 1961; Fraiberg, 1973; Anna Freud, 1963; Klein, 1962; Monbeck, 1973; Sommers, 1944). Much will be determined by how the personality tendencies of a child permit or assist coping behaviors and this will be in proportion to the significance of blindness in the child's life space including earliest infant-parent relationships. As a whole child, adjustment or isolation will tend to generalize for him and may be expected to affect his entire life experience (Klein, 1961).

## DEVELOPMENT OF PERCEPTUAL CONSTANCIES

The constant informational returns of contacts with the environment in which the child anticipates reality are essential to the process of differentiating between "self and other" and "self and environment." Klein (1961) and Anokhen (1961) cited indications that such a process is critical to the development of perceptual constancies.

Klein (1961) suggested that to illustrate the importance of the feedback process, we have people wear lenses that invert the visual field. These people would then struggle anxiously for adequate feedback and would be in a situation where conception and perception do not fit the environment. Effective action then would become impossible.

## BLINDNESS UNDERSTOOD IN THE CONTEXT OF INTERACTION

The literature supports the premise that blindness itself does not cause cognitive or affective stunting. Only a disability that severely limits children's opportunities to interact with their environment and limits the mastering of communication with it has an irreversible damaging effect upon intellectual development. Lack of opportunity to explore, discriminate, and manipulate the world produces an individual with limited coping strategies and little inclination to explore and learn (Blank, 1975; Freud, 1963; Klein, 1961).

Blindness, therefore, must be understood in the context of the manner or organization of information received and dealt with through other modalities, and not in terms of loss of eyesight.

> Personality and cognitive styles are not in the retina, nor in the cochlear nucleus, nor in the corresponding cortical centers of those modalities (Klein, 1961, p. 90).

Unless appropriate stimulation and learning occur at certain critical periods in a child's development, it is likely that serious irreversible consequences for adulthood will result (Erikson, 1959; Hartmann, 1950; Rapaport, 1960). Efforts for preventive intervention must focus on the effects of this impoverishment, caused by the mother's reaction to the child's blindness, and not the sensory impairment of blindness itself.

Erikson (1950) outlined three stages of play which must be accomplished if children are to achieve a sense of reality and mastery of their environment. Stage one centers on the child's own body and includes repetition of sensual perceptions, kinesthetic sensations, and vocalizations. In stage two, the child plays primarily with the mother's body and any other available persons and things. Erikson described this interplay as the child's first "orientation to the world." Children project irritations and frustrations onto small toys, and when they can control these things, they may be ready to go to the next stage. If, instead, youngsters experience fear and disappointment and attempts to master these objects are unsuccessful, they may regress to stage one.

In stage three at nursery school age, playfulness extends to include others, and the child learns what content or concepts are represented in the world of small toys and objects and what part of them can be shared or given to others (Tait, 1972).

It is generally felt that blind and sighted infants may begin life on an even basis because early exploration of the senses and body do not depend on vision. Blind children are less attracted to the "other than self" world because they cannot see it, so they may need more time in stage two and beyond (Ainsworth, 1969; Bowlby, 1966; Anna Freud, 1963; Spitz, 1945).

Erikson (1950) described children who found the "thing-world" too frightening likely to return to daydreaming, thumbsucking, or masturbating. Many blind children display these and other self-stimulating or withdrawal behaviors called blindisms. Morris (1967) noted that social play, first normally directed at the parents and then the peer group, is a critical step in the child's development with far-reaching effects on the later life of the individual. Lack of it causes anti-exploratory behavior and may result in individuals so frightened by the environment that they seek comfort in repetitive stereotypes, i.e., auto-eroticism and rocking. Tait (1972) describes this repetition as an active regression into the safety of the blind child's own world.

Handicapped children can induce much frustration and anger in their parents because they may make more and constant demands and offer fewer rewards than other children. Anger at all of the extra burdens, at the child's relentless demands, and at the subsequent guilt they feel because of their own hostility toward the "helpless" child can be devastating for parents.

When the child senses this guilt and uses it to pressure parents into cooperating with more demands, the cycle of resentment, guilt, and over-protection is established. Instead, many parents develop strong defenses to control their anger (Poznanski, 1973).

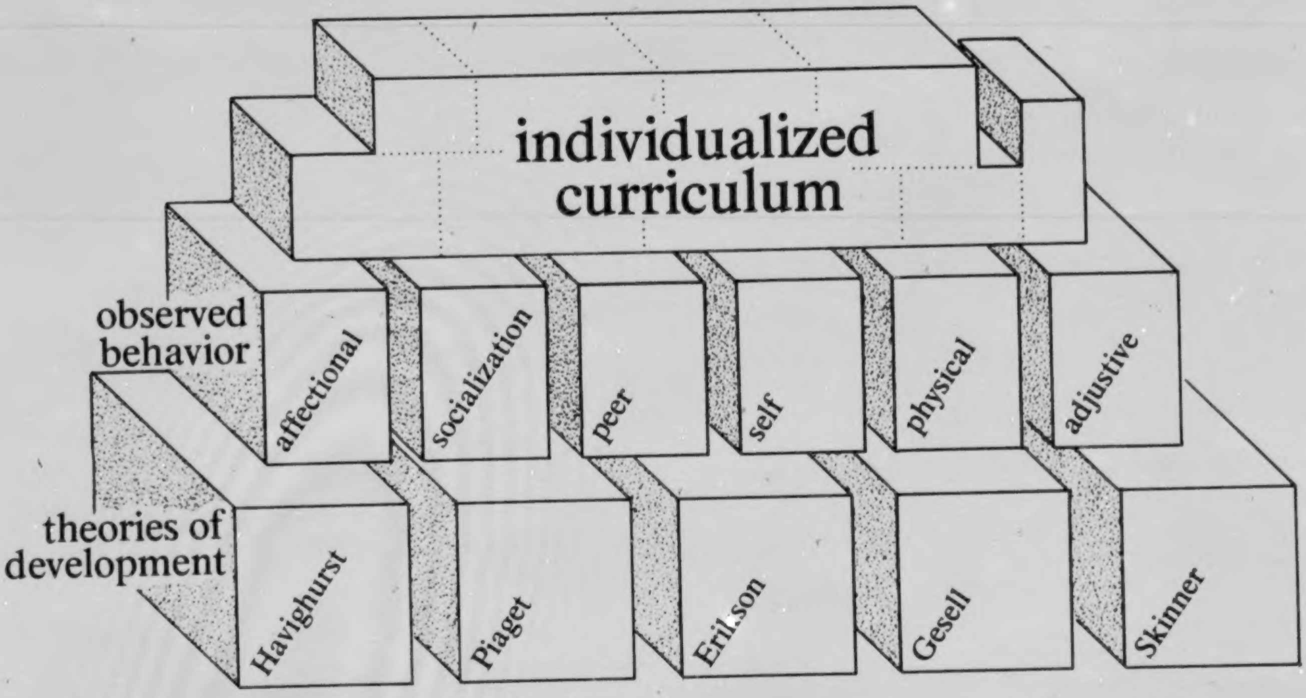
## IMPORTANCE OF EARLY INTERVENTION

Research literature suggests it is reasonable to expect that, unless parents are taught strategies for coping with their own feelings and for early stimulation and training of blind children, we will continue to see serious maladjustment and isolation in many blind children and adults.

In 1971, Winton asked:

> How can the blind, existing as they do in a social structure, which is either nonsupportive or too supportive, maintain a positive self-image and function as competent adults in our society? (p. 24)

A Theoretical Approach to Individualization for Learning in Early Childhood Education


individualized curriculum
observed behavior
affectional
socialization
peer
self
physical
adjustive
theories of development
Havighurst
Piaget
Erikson
Gesell
Skinner

## MAJOR DEVELOPMENTAL THEORIES

Numerous theorists have presented many different views of child development. Each position has specific characteristics and has directly affected the formulation of a set of principles regarding developmental behavior. In similar fashion, curriculum design also has shown varying emphases.

All too frequently, however, developing curricula have been based on other criteria such as the demands and expectations of educators at higher administrative levels who dictate competencies or similar arbitrarily chosen objectives and courses of study. To the great discredit of such bureaucratic systems and the disadvantage of its students, it clearly maintains schools where teachers teach prescribed curricula first and children second.

Careful examination of officially approved, published curricula often provides little evidence of any resemblance to long-researched theories of developmental processes as demonstrated in observed behavior.

In general, major theorists have classified development into five categories: the psychoanalytical theory of Freud and Erikson, the physical maturation view of Gesell, the system of developmental tasks as proposed by Havighurst, the learning theory approach as exemplified by Piaget and, finally, that philosophy defined by Skinner and labeled as behaviorist.

Each theory approaches development with a particular emphasis. It defines principles of behavior from a specific perspective which in turn influences any curriculum based on that theory.

The present effort is eclectic in design, borrowing from each of the above-mentioned theories. Thus, the influence of Erikson is present in viewing the very young child as moving through critical periods in becoming a person. . .the early experiencing of love from significant others and learning basic trust, moving toward autonomy and extending ability in a social context (Erikson, 1950). Gesell's (1948) concern for physical maturation becomes important as the child's body develops physically and competence increases in both gross and fine motor skills as these affect learning.

The Developmental Tasks Theory, as designed by Havighurst (1952) and stated in norms, provides a set of behaviors listed as appropriate at various chronological stages. Because these are specific and observable, Havighurst's norms became useful to parents, teachers, and others in ascertaining the developmental stages in which a child is working.

Piaget's (1950) schemata for cognitive growth becomes a central force for any curriculum planning and particularly so because the stages of learning take into account the young child's world of reality as developed through experience. Piaget's descriptive work regarding the unfolding of intellectual development related to Gesell's physical maturation as well as Montessori's (1967) emphasis on the child's direct experience with environment. For the very young child cognitively working in the sensorimotor stage, it becomes essential that practitioners not only assess the child's progress accurately, but also understand the ensuing implications for programs.

The behavioristic theory of Skinner (1957), Engelmann (1969), and others views the child as being shaped by environment. Skinner's nontheoretical, descriptive approach to learning stands apart from the other theorists presented in that it views behavior as subject to its environmental consequences. Sahakian (1970) describes these consequences or reinforcers as those which increase the probability or frequency of recurrence of a given behavior. If the stimulus is strengthened by the reinforcing consequence, the behavior increases and that is called positive reinforcement. Negative reinforcement results in stimulus termination or the disappearance of the behavior and is brought about by aversive or negative stimuli.

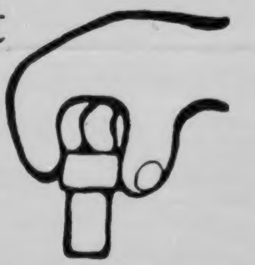
# theories of development

## Erikson
psychosocial

## Gesell
physical growth

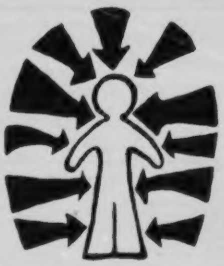
| | | | significant other | social order | psychological modality | psychosexual stage | |
|---|---|---|---|---|---|---|---|
| 72 mo | **school age** | industry vs. inferiority | neighborhood and school | **technological elements** | to make things together | **latency** | eye muscles sufficiently mature for reading • brain reaches maximum size • dependable • independent • fine motor coordination • interacts with peer group |
| 60 mo | **play stage** | initiative vs. guilt | basic family | **ideal prototypes** | to complete | **infantile — general locomotor** | physically steady • good balance • advanced coordination • can handle wagon, trike • does simple chores • independent in self help • eye muscles maturing • ties shoes • narrates long tales • sees likenesses and differences • has articulate speech patterns |
| 48 mo | | | | | to make, to make like | | age of doing • asks why, how • becomes skillful in large muscle tasks: running, jumping, climbing, • very active • easily over stimulated • plays with other children • skillful in dressing/undressing • grows taller, hair thickens |
| 36 mo | **childhood** | autonomy vs. shame, doubt | parent persons | **law and order** | to hold on, to let go | **retentive — eliminative** | loses baby body • good motor coordination, manages stairs, has good balance, dresses and undresses, buttons and unbuttons, can wash, eats competently • uses short sentences, likes simple stories • curious about people • has 20 teeth • has bladder control • asks why |
| 24 mo | **early childhood** | | | | to hold on | **anal-urethral muscular** | investigates • climbs stairs one at a time, throws ball, builds block tower, opens drawers, can eat independently, undresses • distinguishes sound, says no • has 16 teeth, retains baby fat and body shape • engages in solitary play |
| 12 mo | **infancy** | period of developing trust/mistrust | mother person | **cosmic order** | to get, to give in return | **sensory — kinesthetic** | **28-40 weeks** sits, grasps, transfers, manipulates, creeps, climbs, stands, holds cup, takes off sock • says da da, bye bye<br>**16-28 weeks** begins to reach<br>**4 weeks** controls 12 eye muscles<br>**0-12 months** birth weight tripled, height growth 8-10 inches • large head — small body • brain one half size of adult |

## Havighurst
tasks



## Piaget
cognition

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | 20,000 word vocabulary | preoperational period: 1.5 to 7 years | | begins to group • knows concepts of more/less, add/take away | 72 mo |
| | | learns sex differences | | | | child continues to explore, to create meaning in reality through experimenting • begins to make simple classifications | 60 mo |
| | toilet training | | vocabulary of 1000 words, 50 new words per month, uses complete sentences | | symbolic function: signified and signifier | language used as a preconcept • language is egocentric — uses language for enjoyment • language limited by irreversability | 48 mo |
| | | nerve development permits bladder control | 2-5 word sentences, 300 word vocabulary | | | begins to "see" relationships • has a mental image • gestures with meaning or language • uses deferred imitation • begins to use words to represent things not present | 36 mo |
| walks | | | single words, patterns; understands three-word sentences | sensorimotor stage | | experiments to "see" • follows sequence, imitation quicker, more accurate • overt activity combined with internalized thought — moving toward insight • solves a "detour" problem in space • time: anticipates — memory • causality: infers • imitation: complex, absent objects • play: pretends | 24 mo |
| | | | coos, babbles<br>speech | | | sucking • body movements • primary circular reactions: responds to objects, some autonomy • acts upon objects: motor meaning — searches for an absent object • acts/waits • begins to understand symbol • true imitation • turns bottle to reach nipple | 12 mo |



**Skinner**

environment (behaviorist)

Skinner describes his belief in the shaping of person by environment as based on three conditions of interactions between the organism and its environment: (1) the occasion when the response occurs, (2) the response itself, and (3) the reinforcing consequences. Contingencies of reinforcement exist among the interrelationships of these three. Skinner views teaching as an "arrangement of contingencies of reinforcement that best facilitates learning, with or without the teacher." Programmed instruction is based on this philosophy.

Rewards of any kind, i.e., praise, candy, money, appreciation, usually support the probability that the behavior bringing those rewards will be strengthened and its probable frequency increased. Critics of Skinner refuse to accept his position that the human learning is totally the result of this process, exclusive of individual characteristics, i.e., intelligence; health; physical, social, emotional development.

## THE SIX-AREA FRAMEWORK - A HUMANISTIC APPROACH TO CHILD STUDY

According to Prescott (1957), humanists believe that every human being is of value; that they are challenged by life; and that they respond to the human needs, suffering, and frustration of their fellow man. For them, the central theme, motivation, and meaning to life is the struggle to improve the human condition and experience in every possible way.

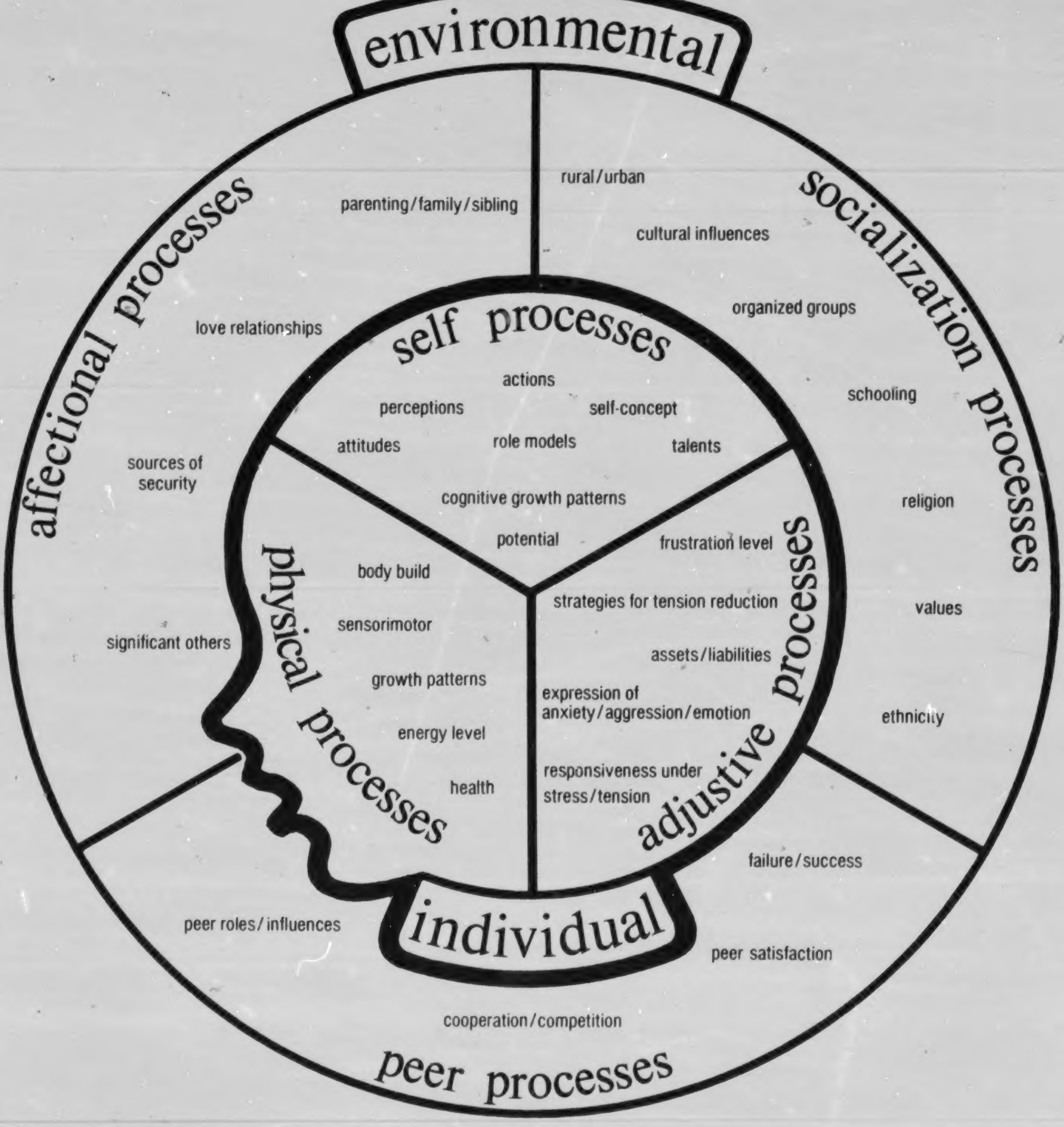
From this philosophy were derived five assumptions to guide the study of human beings (Perkins, 1969):

> (1) Every human being is inherently valuable; (2) Every individual is unique; (3) Behavior is caused. The causes are multiple, complex and interrelated; (4) The individual is an indivisible unity; (5) The scientific method provides the most valid basis for interpreting human behavior. (p. 16)

Based on these assumptions, the method for studying the child through use of a six-area framework was developed. Briefly defined, these are: (1) Physical processes, health, physical development, and appearance; (2) Affectional processes, interpersonal relationships; (3) Socialization processes, those which help the child to want to behave acceptably to a social and cultural group; (4) Peer interaction and relationships; (5) Self-development, child's perception of himself and of the world; (6) Self-adjustive, child's feelings about his own adequacy.

The disciplines represented in the six-area framework present a more generic concept of individual development and of the family as a whole unit whose function is to support the nurturance, socialization, and emotional development of children. Providing

# observed behavior


environmental
rural/urban
cultural influences
socialization processes
organized groups
schooling
religion
values
ethnicity
parenting/family/sibling
affectional processes
love relationships
sources of security
significant others
self processes
actions
perceptions
self-concept
attitudes
role models
talents
cognitive growth patterns
potential
frustration level
physical processes
body build
sensorimotor
growth patterns
energy level
health
adjustive processes
strategies for tension reduction
assets/liabilities
expression of anxiety/aggression/emotion
responsiveness under stress/tension
failure/success
individual
peer roles/influences
peer satisfaction
cooperation/competition
peer processes

security to children as they establish their sense of identity is the most important contribution of significant others in their lives (Ardrey, 1970; O'Dowd, 1973).

The six-area framework is presented here as a valid and useful structure on which to build a better understanding of all children, including those who happen to have little or no sight.

It is as impossible to study the needs and problems of blind children by focusing on the lack of vision alone as it is to study the developmental needs of sighted children by concentrating on the fact that they can see.

All of the processes defined in the six-area framework significantly affect the development of the total child, whether blind, deaf, sighted, retarded, genius, etc.

Intervention must proceed from this humanistic orientation if it is to have any significance.

## EARLY CHILDHOOD EDUCATION

The literature confirms the belief that the need for early education both within and outside the home is supported universally. Training for parents in early child growth and development, in effective parenting, and in appropriate methods for teaching young children are all important. Considered to be a crucial need for all children, it is particularly so for those with handicaps (White, 1975). In view of this need, the early education of very young visually impaired children and their parents becomes critical. Current views generally define this early childhood intervention period to extend from birth to eight years of age (Margolan, 1976; Spodek, 1972; Schaefer, 1970; White, 1975).

Numerous models now dominate the field. Regardless of model, however, four basic program elements are needed to promote learning in young children: the instructional strategies or curriculum plan, environmental factors, the teacher and, most important, the children. Goals for young children must include understanding and using language, developing curiosity and social interaction skills, and stimulation of cognitive development. Instructional strategies (the curriculum plan) are based on theory and reflect a view regarding one's philosophy of person. It is process as well as content.

Environmental factors are also important for children. Space and area arrangement, climate control, adult-to-child ratio, quantity/quality and appropriateness of materials, conduciveness to self-help and independence, noise level, emotional and social tone, all affect the teaching-learning situation and need to be planned and maintained carefully.

The teacher, a curriculum specialist, becomes an agent and facilitator who understands child's developmental needs, stimulates interest, plans environment, designs strategies, and makes adjustments to help the child learner and to meet individual needs. The teacher must, above all, be a warm, creative, understanding, and mature adult.

Children become central to the curriculum, participants in the process, actively curious and creative, and when provided with accurate information, they become disciplined and orderly externally in order to focus logically within. They learn to assess their own work honestly and are motivated and helped to move ahead developmentally. So that children become active participants, the development of both verbal and nonverbal communication skills is most important. Thus, interaction processes should be initiated early and continued so that language, a child's link with society, will develop normally.

Both child and adult thus become learner and teacher. The child expresses through behavior and alerts adults to developmental needs; the adult, in turn, learns from the child, responds with appropriate stimuli, and provides an environment from and in which the child will learn.

The serious responsibility for the early childhood educator is to ascertain the learning and teaching styles operating and to find the "best fit" for each child. The question in comparing various models is not "What is best?" but, rather, "Which is best for whom?"

These considerations of curriculum development are equally true for the child with impairments as for the child with healthy, full-functioning, normal sensorimotor systems.

> . . .all children will learn if we can only learn how to teach them. (St. Francis)

## Language Development Intervention

An individualized approach to language development is essential for the very young child whose language and communication skills are deficient. Early language training serves to motivate language use and to provide tools for more effective communication. When set into meaningful experiences, the child has an opportunity to develop a world of reality and thus to enhance cognitive development. The concepts for this approach encompass the following processes: 1) Understanding and verbalization, 2) Determining relationships, 3) Memory, 4) Expressing, 5) Associating and integrating.

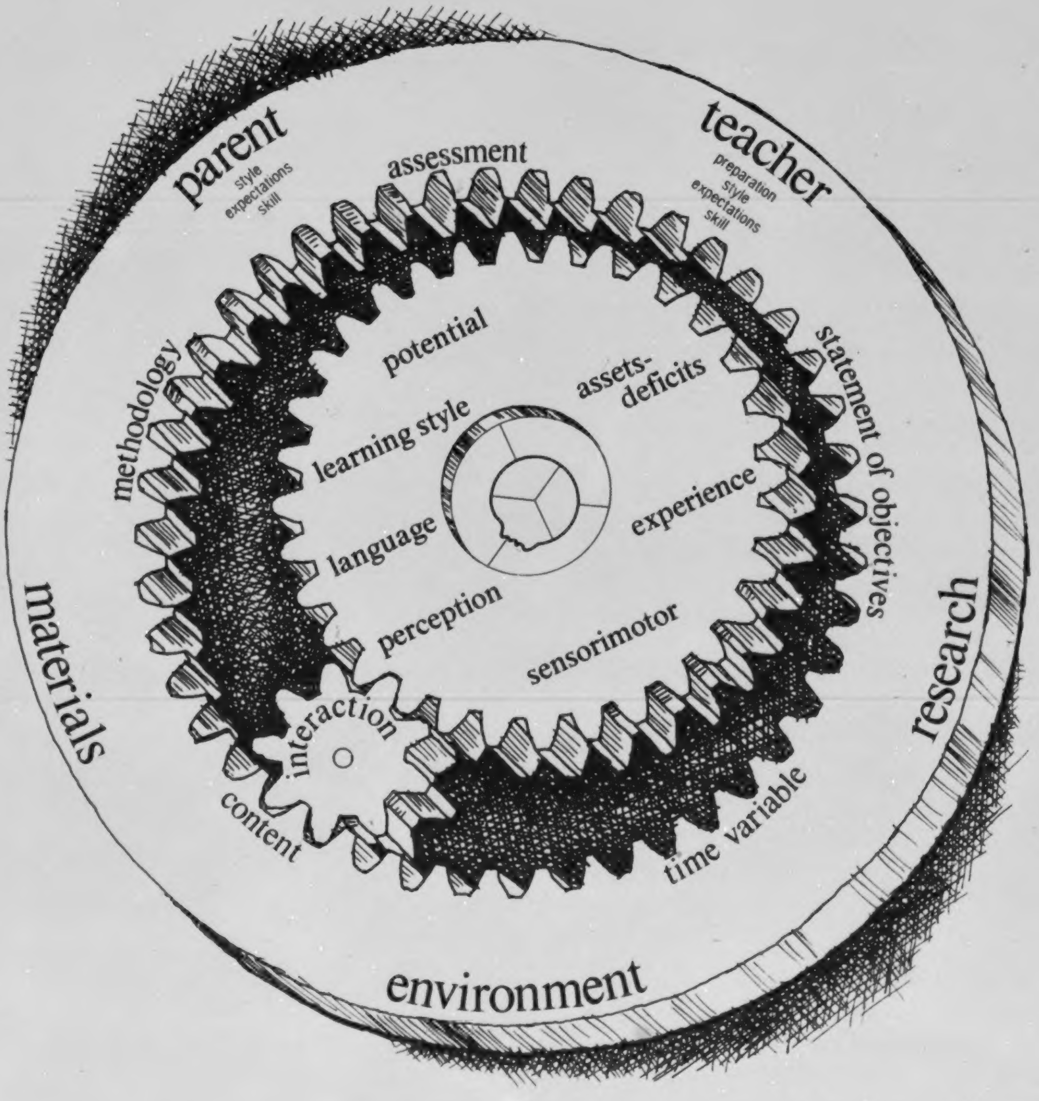
For the purposes stated in developing language, the following have been used: 1) Body awareness, the identification and use of body parts; 2) Tactual awareness, the identification and use of objects as well as qualities of these objects; 3) Sound awareness, imitation and identification of sound (pitch and rhythm); 4) Social awareness, identification of and meaningful interaction with persons through language; 5) Following directions, carrying out and responding to simple directions; 6) Making wants and needs known, initiating communication.

Most researchers who study children's language acquisition concentrate their efforts on normal developmental patterns. Those who are concerned with delayed language frequently consider the problems of children with impaired hearing. Few treat this issue as it relates to visually impaired children, although it is generally agreed that the problem indeed merits attention. Authors point to several factors which influence acquisition and development; namely, experience, stimulation, motivation, affect, and cognition (Bluhm, 1968; Cutsforth, 1951; Gotts, 1975; and Harley, 1963).

### THEORETICAL APPROACHES

Language development, the great humanizer of communication, has become the focus of abundant research. Early works were concerned with observational data on individual children (Ronjat, 1913) and large-scale normative studies which examined form, quantity,

# individualized curriculum


parent
style
expectations
skill
assessment
teacher
preparation
style
expectations
skill
methodology
potential
assets-
deficits
learning style
statement of objectives
language
experience
materials
perception
research
sensorimotor
interaction
content
time variable
environment

word and/or sentence length, parts of speech and vocabulary (McCarthy, 1954; Templin, 1957). Later in the 1960s, Chomsky (1955), Katz and Foder (1963), Postal (1964), and others advanced the importance of the transformation theory.

In the last 10 years, language researchers have begun to consider seriously both the content and the process of language acquisition and the individual differences influencing this development. In addition, research questions led to examining the "cognitive prerequisites for language learning, and the best linguistic theory and formulation for representing the child's linguistic knowledge" (Bloom, 1976, p. 261).

Piaget (1954), Bloom (1970, 1973), and others hypothesized that language development is a consequence of cognitive processes, as these derive from the child's reality as sensorimotor intelligence in the first two years.

The present emphasis, then, minimizes the focus on structure, syntax and transformation. It seeks to examine language acquisition and attempts to assist the practitioner to understand those variables in the child's world of reality which stimulate the acquisition of communication skills.

The world of reality for the visually impaired child or the one blind at birth is necessarily restricted and requires that from the earliest possible moment, all significant persons in the child's environment understand these limitations and join in providing experiences which will improve conditions for identifying, extending, and intensifying his world of reality.

## LANGUAGE ACQUISITION: STAGES AND PATTERNS

Both Piaget (1926) and Montessori (1967) described the child's language development as a system of stages in ordered sequence where children are their own best teachers. Battin and Haug (1964) list the basic requirements of language development as coming from within the child (intelligence, normal hearing, functional speech mechanism, auditory memory and attention span, freedom from chronic illness and brain injury, and, finally, good emotional balance). From the environment, the child needs love, acceptance, security, and a healthy family relationship to provide the stimulation and challenge for language, realistic expectations, appropriate and consistent discipline, encouragement of self-expression, enriching experiences, and good language models.

From birth, infants express and respond vocally so that a variety of cries is recognized by adults in the child's world. Not crying at one month is interpreted as "reacting passively," while crying at one year also can be considered as passivity (Bayley, 1965). As early as 12 weeks, most infants respond to their environment with a variety of cooing sounds, i.e., reacting to stroking, patting, hugging, kissing. Gradually, these gestures develop meaning and the child responds more and more with real communication and expression (Frost and Kissinger, 1976; Lenneberg, 1966; Smart and Smart, 1973).

### First Word Stage

By 12 months, the infant uses "hand language" such as reaching, pulling, pointing, and patting as well as making meaningful vocalization to communicate effectively wants and needs (Smart and Smart, 1973), and has begun to use whole words (Bloom, 1976; Frost and Kissinger, 1976; Lenneberg, 1966). Between 12 and 18 months, understanding of words and phrases improves dramatically. Simple requests and directions are understood. The ability to label and to express needs and wants becomes increasingly fluid and is used independently to obtain what is desired.

### Toddlerhood

By age three most children have learned to combine words and begin to move rapidly into more complex patterns. The children in the studies of Brown and his associates (1963, 1973) were using sentences of four and five words. Sentence construction ranged from agent-object ("Mommy-dog") to agent-action ("Mommy see"), or action-object ("See dog"). Three-year-old children are often found using more complex constructions such as agent-action-object sentences. When the child becomes competent with three-word constructs, there follows a period of elaboration with both adjectives and adverbs used profusely (Brown, 1973; Dale, 1972; Menyuk, 1969; Rebelsky, et al., 1967).

Table 5

Sequence of Language Development

| Approximate Age | Vocalization and Language |
|---|---|
| 12 weeks | Cooing stage (squealing, gurgling sounds); 7-phoneme repertoire; vowel-consonant ratio 5:1. |
| 20 weeks | Vowel sounds interspersed with consonant sounds. |
| 6 months | Cooing changing to babbling; one-syllable utterances (ma, da, mu, di); produces most of the vowel elements and half of the consonants; 12-phoneme repertoire. |
| 12 months | Distinctive intonation patterns; utterances signal emotion; pseudo-imitation of sounds; words are emerging (mama, dada); definite signs of understanding words and simple commands; 18-phoneme repertoire |
| 18 months | Repertoire of words between 3 and 50; intricate babbling; rapid progress in understanding; forms simple 2- and 3-word sentences ("telegraphic" speech) which linguistically code basic cognitive relationships such as actor-objects. |
| 2 years | 2- to 5-word utterances, predominance of nouns; absence of articles, auxiliaries, verbs, prepositions, and conjunctions; one third of sounds clearly articulated; vocabulary 50-500 words, although not necessarily adult in meanings; babbling outgrown; characteristic child grammar rather than imitation of adult; understands language directed at him. |
| 3 years | Average sentence length 4 words; rapid increase in articulation proficiency; learns 50 new words each month to age 5; vocabulary 100-1000 words; grammar approaching that of adult; intelligible utterances. |
| 4 years | Average sentence length 5.3 words; complete sentence stage; good mastery of inflections; use of relational words; mastery of fundamental grammatical rules; utterances consistent with adult grammar. |
| 6 years | Vocabulary of 2562 words (M. E. Smith 1926); vocabulary of 49,500 basic and derived words (M. K. Smith 1941). |
| 8 years | Mature articulation, vocabulary increases into adulthood. |

Reprinted by permission. Frost, J. L. and Kissinger, J. B., The Young Child and the Educative Process, p. 118.

## The Four- and Five-Year Old

Average four- and five-year-olds with normal hearing and vision have unlocked the meaning of language, use it fluently, can explain and describe, and usually can converse intelligently on a variety of topics. Their world of reality is extensive, providing them with sufficient data to use past tense, to compare, to seek answers to questions, to be proficient at the sensorimotor stage and to begin to organize thoughts and experiences at the preoperational level.

Regardless of the research direction, studies agree that children generally begin to vocalize and later to use speech in an orderly sequence and with marked chronological regularity regardless of cultural background or socioeconomic status (Irwin, 1948; McCarthy, 1954; Lenneberg, 1966). Lenneberg noted that, in a group of deaf children, ". . .cooing appeared at about three months, babbling sounds were heard at six months and later, laughter and sounds of discontent were virtually identical with those of the hearing population" (p. 308). Brown (1973) contended that although the sequence of language acquisition is complex, it is invariant. Stimulation from the environment, family interaction patterns, and innate intelligence affect the rate of progress, but have no influence on the sequence of acquisition.

## LANGUAGE: ENVIRONMENT AND EXPERIENCE

Although its role is not sufficiently clear, environment is recognized in most studies as highly significant for language stimulation from the child's earliest experience (Adler, 1973; Bloom, 1976; Broen, 1972; Frost and Kissinger, 1976; Lavatelli, 1971; Smart and Smart, 1973).

Newborns are held and cuddled, spoken to softly in musical tones, experience a whole process of verbal and nonverbal messages through which they gradually begin to see, hear, feel and respond, delighting those about them who, in turn, provide stimulus for positive loops of interaction sequence. The parent thinks, loves, and verbalizes; the child feels, senses, responds, reinforces, and is reinforced in acquiring communication skills. Language development and stimulation are generally successful if the environment is favorable for the development of language and communication skills, and if the experience is sufficiently intense, extended over time, and meaningful. Frequently, environment creates the difference in language acquisition and development between two children with equal potential.

Restricted environments are believed to be significant in all areas of development, but particularly so in language development. Children in deprived environments initiated language later, used fewer words and more immature sentences, experienced difficulty in interpreting the language of others, and, in general, had poorer articulation. Children whose experiences include travel exhibit more interest and a marked increase in vocabulary. These children use more nouns, ask more questions, and use sentences earlier (Bean, 1932; Hurlock, 1973; McCarthy, 1968).

Encouragement and opportunities to talk also provide an environment conducive to language acquisition. Thus, children who are allowed to investigate and who are consistently in the area where adults and older children talk usually will benefit from these experiences by hearing conversation, tone quality, voice expression, and verbal interaction. However, the additional impetus of a more overt effort on the part of significant others, particularly the mothering person, is needed (Bayley and Schaefer, 1964; Bloom, 1976; Broen, 1972; Jones, 1972).

Wulbert, et al., (1975) found that children who exhibited low verbal ability had mothers who were especially deficient in providing a strong mother-child interaction process, and who provided less attention and little verbal stimulation. They hypothesized that the mother-child relationship could be a better predictor of depressed language skills than social class.

Table 6

## LANGUAGE AND SPEECH DEVELOPMENT

Age in Years

| | 6 months | 1 | 1½ | 2 |
|---|---|---|---|---|
| LANGUAGE UNDERSTANDING AND BASIC COMMUNICATION | smiles, laughs | understands "no-no" inhibition; knows "bye-bye" and pat-a-cake | understands very simple verbal instructions accompanied by gesture and intonation; identifies 3 body parts; points to 5 simple pictures, points for wants | identified 5 body parts: finds 10 pictures; obeys 1 or 2 prepositions |
| APPEARANCE OF INDIVIDUAL SOUNDS | 7 vowels, 5 consonants in babbling | 10 vowels, 9 consonants in babbling and echoing | p,b,m,h,w, in babbling | |
| AUDITORY MEMORY IMITATION REPETITION | | lalls; imitates sound: echoes or repeats syllables or some words (may not have meaning) | repeats some words (may not have meaning) | |
| NUMERICAL SIZE OF VOCABULARY | | 1-2 words | 10-20 words | 50-250 words |
| WORD TYPE | | nouns | nouns & some verbs | nouns, verbs and adjectives |
| SENTENCE LENGTH | | | single words | 2 words |
| DESCRIPTION OF VOCALIZATION AND COMMUNICATION | smile, cry, grunt babble, lall, squeal | babbling, lalling, echolalia | leading, pointing, jargon, some words | words, phrases simple sentences |
| PURPOSE OF VOCALIZATION AND COMMUNICATION | pleasure reflexive | pleasure | attention getting | meaningful social control; wish requesting |
| SPEECH CONTENT AND STYLE | | | | possessive "mine"; poor vocabulary and grammar |
| PERCENT INTELLIGIBILITY | | | 20 to 25% | 60 - 75% poor articulation |

| | 2½ | 3 | 4 | 5 |
|---|---|---|---|---|
| LANGUAGE UNDERSTANDING AND BASIC COMMUNICATION | Points to 15 pictures obeys 2-3 prepositions | points to 25 pictures; names 20 pictures | knows colors; 4-5 prepositions; what familiar animals do | knows most common opposites |
| APPEARANCE OF INDIVIDUAL SOUNDS | t, d, n, k, g, ng in words | y. f.v in words | sh, zh, th in words | s, z, th, r. ch, j, in words |
| AUDITORY MEMORY IMITATION AND REPETITION | can repeat 2 digits; can remember 1-2 objects | can repeat 3 digits; gives 4 lines from memory | | can count to ten; can count 4 objects; can repeat 4 digits |
| NUMERICAL SIZE OF VOCABULARY | 400-500 words | 800-1000 words | | |
| WORD TYPE | nouns, verbs, pronoun "I" | pronouns you, me; plurals, adjectives | past tenses; comparatives | adverbs, future tenses |
| SENTENCE LENGTH | 3 words | 4 words | | |
| DESCRIPTION OF VOCALIZATION AND COMMUNICATION | | phrases, longer sentences | complex sentences | |
| PURPOSE OF VOCALIZATION AND COMMUNICATION | | social control wish requesting | experience relating information seeking | |
| SPEECH CONTENT AND STYLE | | announces action; gives full name; tells sex, happenings | language reasonably good; limited vocabulary; seeks information in questions | knows to say "please" & "thank you"; language good |
| PERCENT INTELLIGIBILITY | | 75-90% | 90%; quite a few articulation errors (l, r, s, z, sh, ch, j,th) | some distortion in articulation (r, s, blends); intelligibility good |

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Battin, R.R. and Haug, C.O. Speech and Language Delay, Springfield, Illinois, Charles C. Thomas Publisher, 1964.

Using the Caldwell Inventory of Home Stimulation, Wulbert and associates found that mothers whose children demonstrated normal language growth tended to speak of them in positive terms, tried to reason with them when they were difficult, and spent time playing with them. These mothers generally enjoyed their children. Conversely, parents of language-delayed children were inclined to shout, threaten, and punish. These mothers lived in parallel patterns with their children and took care of their physical needs, but did little interacting with them. They considered the children a cause of frustration. These authors also found no correlation between language acquisition and family social class (Wulbert, et al., 1975). Kagan (1970), Schaefer (1970), and White (1975) proposed that the environment conducive to language must be initiated early and held constant over a long period. It also must be stimulating, motivational, and set in a climate of affect.

Unlike the sighted baby, the blind infant displays few spontaneous facial and other movements and few spontaneous vocalizations, i.e., eye contact or a spontaneous smile. None of the cues by which a seeing baby initiates contact with the mother are evident in the blind baby at rest (Blank, 1975). It is important to every mother that her babies show the usual mobility and activity, that they have normal muscle tone, and that she be able to quiet them when they are upset. Even though children whose only impairment is blindness follow essentially the same developmental pattern as their sighted counterparts, they are not visually stimulated by objects in the environment. They feel no need to grasp or crawl toward any object because it doesn't exist for them unless it makes a sound (Fraiberg, Siegel, and Gibson, 1966).

The implications for language acquisition by blind children are clear. Early parent counseling and training for effective parenting are essential. Zastrzembska (1976) reported that

> . . .one cannot count upon the course of nature in a mother-child relationship to provide the necessary intervention for children who have disabilities. (Friedlander, 1970)

If experience is the basis for all language and learning, then a major part of that experience for seeing children rests with visual perception. Numerous studies have emphasized the role of experience as it relates to the "under-privileged" child and language acquisition (Bissell, 1973; Hess and Shipman, 1965; Schaefer, 1969). The child who has no experience of "zoo," "escalator," "farm," or "skyscraper" has difficulty conceptualizing those terms as presented in a book. Experience becomes the backdrop for the child's emerging expressive vocabulary, facilitates the process of "knowing" and stimulates awareness in learning communication and interacting skills.

In discussing the relationship between experience and language development, Monroe (1951) emphasized the need for many different experiences in daily living. She suggested several types of experience which foster language: family activities, constant exposure to stories and excursions, and frequent repetitions of these experiences. Westlake (1945) considered experience of particular importance to the handicapped child who especially needs help to become an active, interacting member of society. A consensus among writers makes it evident that in preparing children for learning, it is essential to extend and expand their repertoire of meaningful experiences in every possible way because these are the foundation of knowledge and understanding (Bond, 1955; Irwin, 1955; Johnson, 1950; O'Dowd, 1961; Schaefer, 1969).

Harley (1963) stressed that because of the blind child's sensory limitations, reality knowledge becomes most difficult. To compensate for the handicap of visual impairment, special means, using other sensory modalities, must be taken to make the child's world real. Cutsforth (1966) considered language to be the visually impaired child's means for establishing social relationships as a link with reality. However, being able to name things does not necessarily carry the same meaning for the blind as it does for a sighted peer. The visually impaired child may develop in a limited world of "verbal unreality."

Harley claimed that, because of lack of real experience, the blind frequently develop abstractions based upon faulty abstractions.

> Verbal learning without appropriate foundation in concrete experience has been frequently mentioned. . .as one of the major problems of the blind. . . .As the blind child becomes schooled in verbalism (words and concepts to which he can attach insufficient experiential relations) he may often accept verbal descriptions of others instead of gaining the necessary impressions from concrete experiences through his senses. (p. 9)

Noting that conceptual organization of language learning is the primary problem for the normal sighted child and that the coding system starts with representation of concrete everyday objects and events, Friedlander (1973) cited the special difficulty of the child who cannot see:

> If a child cannot see these objects or watch these events taking place, he is bound to have a desperately difficult problem organizing them into coherent patterns of meaning and reference. . . . (Zastrzembska, 1976, p. 180)

Visually impaired children's total communication systems may be so restricted that their functioning may be at a much lower social level than that of seeing children who have experienced reality through many forms of sensory awareness.

> The need for significant others (children and adults) to be aware of these limitations is of particular importance before the child has begun to articulate, helping him to see relationships and to make associations in a wide context of social meaning. . .to have meaning for the world outside of self. (Cutsforth, 1951, 1966)

Thus, if experience is important for language learning by all children, it becomes critical for visually impaired children to be in an experiential climate where they are encouraged, stimulated, and become motivated to investigate and be curious about their environment.

These experiences should be planned with care, sequenced, and paced to meet children's developmental needs. To be effective, they must be interesting and motivating and should use all the child's perceptual potential. To be meaningful, experiences must be ongoing and repeated as often as is warranted considering the children's ability to benefit from them.

In addition, the adult (parent and/or teacher) must extend the experiences with appropriate verbal modeling and stimulation for the exercise to become meaningful. Verbalizing alone is not sufficient, however. For the blind or visually limited child, every effort must be made through sound, feeling, tasting, smelling, and exploring to bring reality and child together.

## LANGUAGE STIMULATION: MOTIVATION AND AFFECT

Using pets as a motivating factor, O'Dowd (1961) experimented with a program of language stimulation to improve the problems of serious language delay in young children with perceptual difficulties. She provided five- and six-year-old subjects with a carefully sequenced set of highly enriched experiences designed to interest, motivate, and stimulate them toward a meaningful recognition of receptive language as well as expressive ability. In a one-semester period, children demonstrated important gains in mental age scores with significant changes in ability to initiate verbal interaction at home and at school, social-emotional growth, and a decrease in nonverbal acting-out behaviors.

In addition to general environment and maternal interaction patterns direct stimulation also plays a significant role in language acquisition (Gordon, 1973; Hess and Shipman, 1969; Levenstein, 1969; Roff, 1950; Schaefer, 1969; Weikart, 1969). Fraiberg (1973) also emphasized the importance of visual interaction and the consequences of its absence for the blind or visually impaired child.

Though stimulation for language is extremely important, it is generally provided through and by significant caregivers. Motivation, on the other hand, according to Beasley (1956), Irwin (1959), and others, comes from within and is one of the most important responsibilities of the teacher. In view of these factors, Harley (1963) noted the importance of using effective strategies in language development.

> More stimulation from listening, feeling, tasting, smelling is needed. The implications point to research in adaptation of methods and materials in classroom instruction to include stimulation of the blind child through the remaining sensory modalities. (p. 53)

Thus, there is consensus that, for the visually impaired child, particular care must be taken to provide a language environment which is appropriately stimulating. The infant and toddler can begin, through stimulating experiences, to extend and expand their world of reality if caregivers recognize the limitations with which the blind child lives and begin to use appropriate materials and methods to improve the interaction experience and to stimulate language development.

Data regarding the quality and quantity of adult-child interaction processes point to the role that both verbal and nonverbal affect messages play in both infancy and toddlerhood. In her discussion of orientation and signals without discrimination of figure, Ainsworth (1969) says:

> The infant during his first few weeks, despite his inability to discriminate one person from another, behaves in characteristic ways to people. He responds to anyone in his vicinity by orienting, tracking with his eyes, grasping, smiling, reaching, and by ceasing to cry on hearing a voice or seeing a face. (p. 1005)

In his study of early infant behavior, Bowlby (1969) concluded that

> the infant has an inbuilt bias toward looking at certain patterns in preference to others and at things that move, that this bias predisposes him to. . .pay special attention to the human face and to track it when it moves; that through perceptual learning the familiar comes to be distinguished from the strange; that there is an inbuilt bias to approach the familiar and to withdraw from the strange; and that this feedback may augment or diminish sequences of orientation behavior. (p. 348)

It is further noted that this pattern becomes reciprocal; the more babies watch and respond to their parents, the more they will go to the infants, pat them, love and talk to them, and the more parents do these things, the more babies will respond to them. An environment that is warm with positive affect and rich in interaction and experience must be provided for children with severe or total vision loss if they are to interpret the world of sound, movement, and touch. Because visually impaired children are denied the opportunity to see the smiles of those near them, vocalizing, picking up, cuddling, bouncing, and patting become doubly significant as reinforcers of verbal behavior.

Ainsworth (1973), Bowlby (1969), and Piaget (1952) concur in noting the importance of the mother's voice as an effective stimulator of verbalization. Though the normal infant may vocalize independent of any outside stimulus, such exercise is greatly enhanced when accompanied by another in a setting of affect.

Educators generally consider the presence of affect important in the learning interaction process when the teaching and learning are experienced in a verbal setting (Bell and Ainsworth, 1973; Caldwell, 1963; Hess and Shipman, 1966).

Parents and teachers should be aware of the need to maintain an affectional climate in the language learning setting.

## LANGUAGE AND IMITATION

Language, just as motor development, needs an environment conducive to its acquisition. In particular, children require the stimulation of good models (Cazden, 1972; Hurlock, 1973; Pflaum, 1974). Although imitation is not the only factor in language learning and may not have the direct value once believed, models and imitations are significantly important in stimulating language acquisition (Cazden, 1972; Frost and Kissinger, 1976; Wilkinson, 1971). Pflaum (1974) noted that language is learned by imitation of structures in which the child not only imitates, but receives, positive reinforcement.

The parenting person is in more direct contact with the infant and young child, so the interaction processes would appear to have significance in language acquisition. Consciously or unconsciously, the parents (especially the mother) become models for both verbal and nonverbal communication (Caldwell, 1963; Cazden, 1972; Hess and Shipman, 1965; Irwin, 1959).

In concurrence are the findings of White (1975), Bloom (1976), and Braine (1976). Gordon (1973) also found a direct relationship between parental language and the child's ability to form abstract concepts when parents were aware of the importance of modeling language in an interaction setting. Hence the interaction of the parents modeling language with the child's imitating becomes a more productive learning experience. An example is the language flow between each parent and the child when the parent brings something to the child's attention, verbally names the item, helps the child experience it by feeling, smelling, or tasting, and the child imitates by repeating the parent's verbal stimulus. The parent thus instigates an interaction by responding, extending, expanding, and eliciting from the child more verbalization.

Because child-to-child relationships are unique and a significant factor in developmental processes, siblings and peers also can influence language acquisition and learning. Shatz and Gelman (1973) found four-year-olds skillful, spontaneous, and task-oriented in helping younger children in language acquisition.

Imitation combined with interaction, therefore, becomes extremely important in visually impaired children's language development. Children should receive early stimulation and modeling. Expectations set for their imitation must begin with the earliest cooing, babbling and one-word verbal experiences. McNeill (1966) and Kagan (1969) both argued that the child does not learn language from parents but through interaction with them. Colby (1968), Brown and Fraser (1963), McNeill (1966), and others agreed that language development occurs through interaction. The child hears patterns and word combinations, responds by imitating, and, when these vocalizations are expanded, the interplay confirms, encourages, and rewards the child's efforts. Imitation of itself is not the learning tool, but becomes the means for the interaction.

Hess and Shipman (1965) found the interaction style of language between parent and child to shape cognitive style. Imitation also must be within the context of reality so that, as children imitate verbally, they can establish meaning. For the visually impaired child, this process requires extensive use of each of the other senses so that the sounds and words imitated will not remain just that. The quantity and the quality of modeling combined with meaningful imitation and interaction become crucial for the visually impaired child's language learning.

## LANGUAGE AND COGNITION

Although widely recognized and accepted, the correlation between language and cognition remains controversial as researchers continue to study the complex links between those processes. Despite the role environmental factors play in language acquisition, recent research also indicates a strong interaction between cognitive processes and language development. Children may develop some concepts because of language, but also may learn to categorize before they have acquired a usable language. Having learned to recognize and classify objects, children develop a repertoire of information. Language provides a means for labeling and communicating what has been learned and serves to extend information concerning the environment (Brown, 1973; Sachs, 1971; Sigel, 1971; Slobin, 1966).

Lenneberg (1966) implies that language, having a specific basis which is both environmental and physical with a definite task, is highly important in cognitive development. According to this author, cognition can develop without any knowledge of language. Growth in language appears to depend on some degree of cognition and the ability to categorize.

In his study of use of temporal reference by young children, Cromer (1968) found that regardless of the quantity of time or exposure to tense--past, present, perfect, or future (such as "We will go after we eat," - "Maybe it was a bear," - "We can do it next time")--children consistently began using expanded temporal reference between ages four to four and one-half. Cromer concluded that cognitive ability accounted for this step in language acquisition and use of linguistic rules.

As the complex relationship between language development and the cognitive process continues to be studied by researchers, Piaget's work offers the practitioner several useful principles. First of all, Piaget states that learning is an active process having its source within the individual. The child's percepts, images, memories, and concepts are the data by which the young child uses experiences with the environment to construct a composite of reality. Language becomes associated with this process, facilitating expression of ideas and understanding those of others. Language is "...an instrument of thought based on the child's sensory schemes and action" (Piaget and Inhelder, 1969, p. 91). Piaget (1950, 1952, 1954, 1969) also felt that learning occurs in longitudinal, coherent, developmental stages. These steps take place over a long period and are in an ordered sequence. Each stage is a prerequisite for those which follow, and their structure often differs from what adults might anticipate. To take the view of another is impossible at this egocentric preoperational thought stage.

Moving into the intuitive phase of the preoperational stage (ages four to seven), children develop the ability to classify, see relationships, and to use number concepts. Thus, children can recognize and group sizes, shapes, colors, and textures. They identify relationships such as cat-kitten or "Betty's mother is Mrs. Jones." They know quantity and can produce a sum.

Brown (1954, 1973), Bruner (1966), and Montessori (1948) agreed with Piaget's schema of developmental stages and provided methods of practical applications for his principles of concept formation. The hypothesis that experience stimulates language acquisition and influences cognitive development holds for the child with a learning handicap no less than for the one who is normal. Language development can enable the handicapped child to formulate ideas more effectively and allow for more interaction, thus contributing to the ability to conceptualize (Slaughter, 1959; Monroe, 1951; Deighton, 1960; Schaeffer, 1970).

In the case of the child with a visual impairment, care must be taken to ensure that the child form correct concepts based on experience and coupled with meaningful language. Bluhm (1968) emphasized the importance of listening and auditory discrimination along with dependence upon other senses to help the child who is visually impaired compensate for a deficiency in sight. Accurate concept formation becomes most difficult in a world of reality which is necessarily limited. Tactile discrimination should be used in learning to identify reality, and vocabulary development should be extended through use of all nonvisual contact in order to facilitate concept formation.

Higgins (1973) examined the Inhelder-Piaget theory of classification skills as they related to a group of congenitally blind children. The author found that Piaget's theory of developmental stages generally held true for the blind subjects who showed no lag in classification skills when these skills relied on intellectual structures. However, the group did exhibit a deficit in tactile perception when confronted with material of perceptual or figurative orgin.

When early intervention ensures that parents and teachers of visually impaired children are alert and sensitive to the need to develop adequate language and cognitive skills based on reality, they will avoid the pitfall of allowing the child merely to verbalize and form abstractions based on abstractions. For this child, the complex relationship between language acquisition and cognition is of particular importance in all program planning.

## LANGUAGE DEVELOPMENT PROGRAMS

The efforts of researchers in language development during the past decade, combined with the concern of early childhood educators giving particular attention to children in programs of early intervention, have stimulated creation of numerous systematic approaches to language acquisition. The needs of children labeled "disadvantaged" triggered special interest, leading to studies which demonstrated the effects of early deprivation on verbal behavior and early intervention (Bereiter and Englemann, 1965; Hess and Shipman, 1969; Schaefer, 1969). As a result it is advocated that specific programs be provided giving children opportunities to listen, to respond and be responded to, to be the learner and to be the active participant. Cazden, et al., (1971) held that, in order for any early childhood program to be educationally effective, serious attention should be given to the differences between child-teacher language systems and the child-to-child verbal styles.

If early education environments are to be effective experiences, they should encourage as much talk among the children as normally would occur outside. The teacher's task is to channel the energy and versatility of children's conversation into constructive language use and understanding.

Bartlett (1970) analyzed the best known of current language programs and found that most programs specified a vocabulary including nouns, verbs, adjectives, adverbs, and prepositions. The words chosen were considered by educators as basic to school learning. In numerous cases, however, the programs ignored understanding of developmental stages and logical operations or gave them insufficient attention, so that the so-called cognitive approach really was based on an unrealistic premise.

Other programs make overt efforts to teach syntax and correct form. They are intended for "disadvantaged" children to acquire "standard English."

## Interaction Patterns

Several patterns of interaction predominate in the literature on programs: pattern repetition, instructional dialogue, and improvised interaction. Bartlett (1972) described these types as follows:

In Pattern Repetition or paired-association patterns, the teacher models language, provides feedback, and adjusts materials: the child listens, follows directions, repeats, and imitates. Though certain advantages exist in its use, pattern repetition has limited possibilities. Examples of this type of interaction include those developed by Southwest Regional Laboratories (SWRL), Engelmann-Osborn-Engelman (DISTAR) Yonamura, Gotkin (LANGUAGE LOTTO), and Dunn, et al., (PEABODY).

A second interaction process is that of Instructional Dialogue in which children respond to a stimulus such as, "Can you guess which box I'm thinking of?" and then describe the articles. This model does not emphasize repetition, encourages children to initiate their own learning setting, and attempts to provide a naturalistic setting. This system provides for language development in a functional communication situation, in which children try to solve a problem or get across an idea.

Examples of Instructional Dialogue are programs developed by Lavatelli, Palmer, Weikart, and Dunn.

A third interaction model is found in Improvised Interaction and utilizes role play, sociodramatic play, story dramatization and communication games. In some ways similar to Instructional Dialogue, this type encourages functional adequacy in communication and uses a naturalistic setting. The method is unique in providing an open-ended situation, allows the child more freedom of choice, and requires the child to learn vocabulary and syntax in order to communicate clearly. A disadvantage is that the teacher has less opportunity to directly introduce new vocabulary. Adkins, Smilansky and Shaftel, and Palmer provide examples of models using this approach.

## Prestructuring

In examining the Prestructuring provided in various program approaches, Bartlett (1970) indicates three areas: ". . .the amount of presequencing provided by the materials, the degree to which all children have a uniform experience in the program, and the type of teacher's guide" (p. 56).

Presequencing refers to a systematic plan in which the teacher is provided in advance with an exact plan for the language program. Examples include the work of Lavatelli, Palmer, Dunn, Engelmann, Adkins, and the Open Court Plan.

Other programs provide presequencing with less specificity and allow for teacher diagnosis and responsibility. These include the programs of New Nursery, Weikart, Matrix, and Language Lotto. Still others allowing for even more teacher planning include Bowman, Bank Street, Benefic Press, Smilansky and Shaftel.

## Degree of Uniformity

Bartlett (1970) also discusses the Degree of Uniformity by which programs provide identical experiences for all children. Some programs are so explicit that each child's schedule is set up in all detail, and experiences are uniform for all children. In other programs, the plan is specific in terms of order over a longer period, but there is more flexibility regarding how, when, and in what manner the child will participate in these activities (Language Lotto, Matrix, Talk Reform, Weikart, Yonamura).

In other settings, there exists a plan with activities and materials available over a period of time, but the child is free to participate with more choice. In these settings there can be no prediction regarding the degree to which the child will talk or participate (Bank Street, Benefic, Bowmar, Smilansky and Schaftel). Thus, some programs have been "teacher proofed," while others place more responsibility and decision making with the teacher.

## Type of Teacher Guides

The purpose of most Teacher Guides is to provide the teacher with a theoretical framework, a rationale, and detailed description in order to carry out a program independently.

Bartlett's analysis provides four categories of teacher guides: Extended Explanations, Script Plus Examples, Script Only, and Topics with Suggested Questions.

Extended Explanations provide detailed plans including purpose, objectives, explanation, exact procedures, additional follow-up activities, evaluations and assessment forms (New Nursery, Language Lotto, Matrix).

Script Plus Examples gives the teacher a script with examples. This model provides explicit directions and exact working with examples (Lavatelli, Palmer, Open Court, Shaftel).

Though specific in format, the Script Plus Examples does allow flexibility and permits the teacher to select from several examples. At the same time, however, the plan ensures against disorganization by providing a detailed day-to-day set of sequenced curriculum decisions.

Script Only has few examples, but does include very specific procedures outlined in detail (Adkins, Distar, Oral English, Peabody). This type of guide expects both teacher and child to behave in a prescribed manner and allows for few alternative questions or responses.

Topics and Suggested Questions is a fourth type concerned with specific topics (concepts), and provides suggested questions and approaches. It makes the teacher responsible for developing specific procedures appropriate to the child (Bank Street, Benefic, Bowmar, Smilansky, Weikart).

Simmons (1975) provided a brief but excellent, clear, and practical manual of language development activities for specific use with visually impaired children. The booklet should be useful for parents and lay persons as well as teachers. Among the topics covered are specific activities for receptive and expressive language acquisition, articulation exercises, charts, and a helpful glossary.

The BABL program of language development for very young multihandicapped blind children is designed for use by teachers and parents. It contains three levels, (birth to three years); 1) Receptive, 2) Expressive (a few words), and 3) Short sentences. Final field testing is being completed and it should be available in 1977 from the American Printing House for the Blind, Louisville, Kentucky.

In view of recent research in language development programs, it becomes apparent that certain modifications are necessary for programs designed to stimulate language in blind or visually impaired children.

In addition, specific constraints exist in those children's limited ability to perceive their world of reality in the absence of visual clues. If those providing early care do not (through nonvisual modalities) create experiences of perception to bring reality to the child, language difficulties can be anticipated. If additional limitations exist such as mental retardation, brain injury, or other behavior and/or learning disabilities, the problem is compounded. Thus, programs intended for other groups needing intervention are in part useful, but need careful adjustment and revision if they are to be used successfuly with blind and severely visually impaired children.

Programs designed to stimulate the language development of the young visually impaired child should provide the following:

1. Stimulation should begin at birth;

2. Goals and objectives should be appropriate, realistic, and individualized to meet the specific needs of the child, taking into account the total developmental framework with consideration for deficits and potentialities;

3. Methodology should be pragmatic and should rely on sound educational approaches which will provide basic experiences in reality;

4. Materials should allow for learning about reality in the absence of visual clues and should rely heavily on hearing, feeling, smelling, tasting, and mobility;

5. Each and every experience should be translated into language motivation and stimulation;

6. Assessment should be constant and ongoing so that day-to-day experiences and learning can be optimized;

7. Early education with specific guidelines and opportunity for practice under observation should be provided to parenting persons and all family members as primary educators of the child.

As Harley (1963) stated, "The implications point to research in adaptation of methods and materials in classroom instruction to include stimulation of the blind child through the remaining sensory modalities" (p. 53).

CHILD DEVELOPMENT PROGRAM MODELS

## Model $A_1$: Bank Street Program

The Bank Street Program is concerned with all dimensions of the child's development. Learning can be understood only in the context of the total development of the child. The teacher is essential in the total learning-development process. It is the teacher who helps the child become aware of himself and his world, and who sensitizes him to his experiences, feelings, and ideas. The teacher nurtures a trusting relationship with the child which serves as the basis for the child's affective and cognitive development. The child also must be able to integrate in-school and out-of-school experiences into a meaningful whole. For this to occur, home-school relations, parent-teacher interaction and co-planning are essential.

In this model, the classroom is the child's workroom where he is free to explore and discover, where he makes choices and follows through on these choices, where he learns to work as an individual and to cooperate with others in carrying out activities. The teacher may plan and introduce activities, but the teaching-learning will depend upon the child's activity. The teacher uses a diagnostic approach, individualizes follow-up, and helps the child extend his experiences. These planned activities are based on a natural environment within the classroom and then are extended to the larger community. Academic content and skills are learned within the context of a relevant, stimulating classroom environment. Language development is seen as the development of interpersonal communication, and is essential to cognitive learning.

Bank Street College of Education. The Bank Street Approach to Education. New York: Bank Street College, 1969.

Biber, Barbara. Goals and methods in a preschool program for disadvantaged children, Children, 1970, 17, (1), 15-20.

## Model $A_2$: Education Development Center

The Education Development Center model is concerned with all aspects of the child's growth (physical, emotional, social, and intellectual). It provides a natural beginning in the education of young children. Through play, the young child should experience the joy of childhood in terms of physical, emotional, social, and intellectual well-being.

According to this model, the child needs opportunities to discover himself as a physical being. He needs space in which to try out his physical skills and an understanding teacher knowledgeable in child development. The Education Development Center model advocates opportunities for the child to discover, understand, and accept his own feelings under the guidance of a humane teacher. The child needs opportunities to experience human relationships and to discover himself as a social being. The teacher allows the child to explore these relationships naturally. The child needs opportunities to discover himself as a thinker. With teacher encouragement, the child begins to explore his own developing cognitive abilities with ever-increasing independence.

In summary, through the richness of his play experience, the young child learns about himself, other people, and the world around him. The teacher provides the kind of physical and emotional environment which encourages this exploration.

Kohl, H. R. The Open Classroom: A Practical Guide to a Way of Teaching. New York: Harcourt, Brace, Janovich, Inc. 1970.

University of London, Institute of Education. First Years in School: Aspects of Children's Development from Ages of 4 to 7. London: George G. Harrup and Co., 1967.

## Model B: Responsive Environment Model

The Responsive Environment Model attempts to help the child develop his intellectual ability, his sense of autonomy, and his self-esteem.

Environment is considered a major factor in learning and is so structured that the child will be stimulated to discover, explore, and learn from these experiences.

Nimnicht's approach encourages activities which are self-rewarding and trains the teacher to be responsive to the child's expressed needs in assisting him to solve problems. Teaching a specific concept is in response to a child's expressed interest.

This model emphasizes sensory and perceptual acuity and discrimination as an approach to cognitive development. Classroom arrangement is specified and orderly. Tasks are prescribed so that the child can center his attention on activities without distraction.

Teachers provide verbal mediation, assist the child in his perceiving, and provide intrinsic rather than extrinsic motivation.

Nimnicht, Glen. The Autotelic-Discovery Approach. Berkeley, Calif.: Far West Laboratory for Educational Research and Development, 1968.

Nimnicht, Glen. The New Nursery School. New York: General Learning Corporation, Early Learning Division, 1969.

## Model C: Verbal Cognitive Model

The Verbal Cognitive Model provides a framework of goals and assumptions based on Piaget's theories of intellectual development. The major emphasis is threefold: the curriculum, the teacher, and the home. Activities and materials serve to help the child master basic concepts in spatial relations, temporal relations, classification, and seriation.

This approach defines intellectual development as the ability to create increasingly abstract and complex mental representations of self and environment. The child learns to use his own body to experience (motor level), to label his experiences (verbal level), to use object representations, and to think abstractly (symbolic level). Self-concept development is central to the learning process; language becomes essential for labeling, interpreting, and explaining cause-effect relations.

In this model, the classroom teacher is expected to develop the program design, establish the goals and methods, and to plan and evaluate.

Parent participation and education are a major focus of the model. Parents are assisted in learning the tools and methods of teaching language and cognitive skills.

Kamil, C. Piaget's Theory and Specific Instruction: A response to Berecter Kohlberg. Ypsilanti Public Schools. Ypsilanti, Michigan, 1967.

Weikart, David, et al. The Cognitively Oriented Curriculum: A Framework for Preschool Teachers. Washington National Association for the Education of Young Children, 1971.

## Model D: Sensory Cognitive Model

The Sensory Cognitive Model is a design which encourages the child to learn through his own initiative and curiosity and at his own pace, through a carefully sequenced use of materials. "Ordered" and "prepared" environments are key concepts in this model. Respect for the individual child and formation of total personality are central.

The curriculum stresses four basic areas: practical living, sensorial learning, mathematics (logical reasoning), and language. Art, social studies, and music are blended into and considered part of the four major areas. The Montessori model is an individualized approach, designed for non-gradedness and allows for multi-level age groups to work in a single classroom.

The Montessori teacher is trained to implement the program as an objective observer whose role is to guide and assist the child.

The child works independently in developing knowledge and skill in the four instruction areas. Developing "inner discipline" by the child, a major focus of the model, is accomplished through the prepared environment and materials used in a prescribed order.

Parental involvement and participation are encouraged through classroom visitation and observation and in the preparation of materials.

Montessori, Maria. The Montessori Method. New York: Schocken Books, 1964.

Rambusch, N. Learning How to Learn. Baltimore: Helicon Press, 1962.

## Model $E_1$: The Engelmann-Becker Model

The Englemann-Becker Model has been designed for the education of the "disadvantaged" child. It is a highly structured academic approach to the preschool and lower primary child predicated on the belief that the child must be trained specifically in those skills deemed prerequisite to success in the primary grades. The approach promises average or above-average achievement levels in the upper primary grades regardless of entry level "disadvantage."

The model relies on a highly intrusive verbal teaching strategy. The teacher's role is totally prescribed within a highly sophisticated system of curricula materials. The participation of the child in all didactic aspects of the program is compulsory, and child response is consistently regulated through the liberal use of behavior modification principles.

Programmed materials have been developed in the areas of reading, arithmetic, and language. Each child is required to participate in sequential lessons in each of the three content areas daily. Progress through the materials is carefully monitored to insure optimal movement through the materials. Consistent with the emphasis on total teacher control of the learning process, the teacher is held accountable for less than optimal child performance and achievement. Teacher training in the implementation of the Distar curriculum has evolved into a highly sophisticated system capable of producing teachers of highly uniform teaching skills.

Englemann, S. Preventing Failure in the Primary Grades. Chicago, Illinois: Science Research Associates, Inc., 1969.

Englemann, S. & Bruner, E. The Distar Reading and Instruction System. Chicago, Illinois: Science Research Associates, Inc., 1969.

## Model $E_2$: Behavior Analysis Model

The Behavior Analysis Model is a program which uses Skinnerian behavior modification techniques to operationalize behavioral objectives.

In this model, children are directly taught the arithmetic, language, reading, and writing skills. A reward system of tokens and praise is used to provide immediate reinforcers for positive behavior. The tokens can be used to purchase snacks and "privileged activities," e.g., use of play and other special equipment.

The number of tokens the child receives serves to indicate to the teacher the degree of successful instruction and the need for alternate approaches, or further individualized attention.

Parents participate in the program as paraprofessionals trained in the use of behavior modification techniques.

Bushell, D. A Token for Behavior Analysis Classrooms. Lawrence, Kansas: University of Kansas, Department of Human Development, 1970.

Bushell, D. The Behavior Analysis Classroom. Lawrence, Kansas: University of Kansas, Department of Human Development, 1970.

For a listing of early childhood programs and language development assessment and instructional materials, please see Appendix C.

# 6 methodology

## Subjects and Instrumentation

Children from twelve sites in California, Pennsylvania, Texas, and Utah were used. Ten of these were public and/or private day school programs and two were residential schools. The sites were San Diego, California, Public Schools, Early Childhood Program: N= 112; Variety Club Foundation for Blind Babies, San Francisco, California: N= 12; Allegheny Intermediate Unit, Pittsburgh, Pennsylvania: N= 23; Overbrook School for the Blind, Philadelphia, Pennsylvania: N= 2; Upsal Day School, Philadelphia: N=23; Center for Multihandicapped Children, Houston, Texas: N= 7; Dallas Services for Visually Impaired, Dallas, Texas: N= 7; Model Early Childhood Project, Galveston, Texas: N= 18; Texas Commission for the Blind, (Statewide): N= 11; University of Texas, Austin, Texas: N= 7; Utah Public Schools itinerant teachers, Ogden, Utah: N= 16; Utah School for the Blind, Ogden, Utah: N= 12. San Diego and Galveston were regular public school programs for sighted children.

Intervention strategies included seven (subject) areas for children from birth to three years, 14 (subject) areas for those from three years to school readiness, and language development designed for children from birth to five years. Numbers of usable pre and post assessments returned are inconsistent for the different areas, i.e., 145 pre-post were returned for perceptual-motor development (77 for sighted and 68 for visually impaired) and 135 pre-post were returned for social studies (71 for sighted and 64 for visually impaired). The material included 145 objectives for birth to three years, 189 objectives for three years to school readiness, and 101 objectives for language development. Due to the serious time constraint (some assessments were returned as late as June 1976), it was necessary to treat the essential factors in this rather massive amount of data as efficiently as possible. A hierarchy of data analyses was set up in the following order: 1) the percentage of objectives and/or behaviors accomplished for developmental checklists and for all instructional objectives, 2) number of objectives accomplished for language development interactions, and 3) differences between pre and post tests for the 12 language development areas using a t-test for correlated data.

Three categories of vision levels are defined for this study and all subjects from both public and residential schools are classified according to these categories:

Category A Total blindness to light perception

B Legal blindness: >light perception to 20/200 with best correction

C Sighted: >20/200 to 20/20

## CHECKLISTS USED TO ASSESS DEVELOPMENTAL LEVELS

These checklists were used to assess general functional levels for all children from birth to six years old. They included the following categories of development:

### Checklist A and B

| Area Assessed | Checklist A | Checklist B |
|---|---|---|
| Gross Motor | 36 | 88 |
| Fine Motor | 38 | 62 |
| Self-help | 45 | 29 |
| Perceptual Development | 65 | |
| Conceptual Development | 33 | 45 |
| Social Development | 33 | 92 |
| Emotional Development | 39 | |
| Communication | 49 | 104 |
| Auditory Perceptual | | 49 |
| Visual Perceptual | | 69 |
| Toileting | | 14 |
| Dressing | | 4 |

### Learning Center Preacademic Checklist C

| | |
|---|---|
| Knowledge of Self | 9 |
| Social and Emotional Growth | 28 |
| Language | 26 |
| Mathematics | 13 |
| Science | 9 |
| Social Studies | 5 |
| Art | 17 |
| Music | 8 |
| Gross Motor | 29 |
| Fine Motor | 25 |
| Visual Skills | 30 |
| Auditory Skills | 13 |
| Body Awareness | 12 |

Total items in checklists A, B, C: 1172

### Language Development Vocabulary Inventory and Checklists D, E, and F

| | Vocabulary Inventory | Checklist D | Checklist E | Checklist F |
|---|---|---|---|---|
| Number of items | 68 | 23 | 15 | 31 |

Total language development vocabulary checklist items: 137

Total items all checklists: 1309

For developmental checklist analyses, two categories of vision were used, and categories A and B were combined to represent all visually impaired children. For language development objectives analyses, legally blind and sighted subjects were combined in order to study the effects of complete lack of eye contact and visual feedback on language development.

While a demographic information form was supplied for every child and written instructions for completing it were provided for each administrator and teacher, it was found that diagnosis of eye impairments were specified for only 86 subjects even though subnormal acuities were recorded for many more. Two subjects had three eye impairments and five subjects had two eye impairments. The incidence percentage of each eye condition category represented is reported in Table 7.

Pretests were administered in the fall of 1974 after each site was visited by the Project Director between September and November. Posttests were administered at the end of school in May 1975. Exceptions were the language development program for public and residential school visually impaired children in Utah where the entire school year was utilized with pretests given in September 1975 and posttests in May 1976. The latter situations were closely monitored and controlled by local administrators.

All data were posted by project staff on NCS answer sheets.

Table 7

Incidence of Eye Conditions Reported In This Study*

| Categories of Impairment | Percentage |
|---|---|
| 1. Retinal Choroid | 19.77% |
| 2. Uveal tract | 1.16 |
| 3. Cataracts and Corneal | 32.56 |
| 4. Glaucoma | 3.49 |
| 5. Injury | .00 |
| 6. Optic nerve | 18.00 |
| 7. Tumor | 1.16 |
| 8. Optic defects | 16.28 |
| 9. Disease process | 4.65 |
| 10. Other | 6.98 |

* Percentages will total more than 100 because some subjects had multiple conditions. Current national incidence tables published by the National Institutes of Health, Bethesda, Maryland, may be seen in Appendix D.

INTERVENTION OBJECTIVES

| Intervention | Subject Area | No. Objectives |
|---|---|---|
| Birth to 3 years | Auditory Discrimination | 6 |
| | Motor Development | 33 |
| | Personal-Social Behavior | |
| | Eating | 12 |
| | Sleeping | 4 |
| | Elimination | 7 |
| | Physical and Emotional Bases of Behavior | 82 |
| | Vision Training | 7 |
| | Total number birth to 3 years | 151 |
| 3 years to school readiness | Art | 11 |
| | Body Awareness | 10 |
| | Language Arts | 22 |
| | Mathematics | 17 |
| | Music | 8 |
| | Perceptual Motor | 17 |
| | Physical Education | 9 |
| | Preschool Developmental | 18 |
| | Science | 11 |
| | Social Education and Citizenship | 14 |
| | Social Studies | 11 |
| | Tactual Awareness | 16 |
| | Vision Stimulation | 14 |
| | Total number 3 years to school readiness | 178 |
| All levels | Language Development | |
| | Auditory Discrimination | 7 |
| | Receptive | 6 |
| | Imitative | 6 |
| | Expressive | 6 |
| | Integrated Expressive | 7 |
| | Specific Concepts and Constructs | 15 |
| | Total Process | 10 |
| | Related Activities | |
| | Daily Living Skills | 13 |
| | Pre-mobility | 11 |
| | Gross Motor | 4 |
| | Fine Motor | 3 |
| | Supplemental Activities | 15 |
| | Total Language Development Objectives | 103 |
| | Grand Total Instructional Objectives | 432 |

The objectives format for every subject area is a diagnostic one. Examples may be seen in Section III at the beginning of each area.

## Treatment of Data

A frequency distribution (N and %) was obtained for five age groups, one to five, of visually impaired and sighted children for developmental checklists A, B, and C and for all instructional objectives. The same was done for language development checklists D, E, and F, except the vision categories used were blind, legally blind, and sighted. Because of the small number of subjects with usable data, not all age groups will be reported.

In the language development intervention, the objectives in each area were added to give a score for each child on both pre and posttests. A t-test for correlated data was performed to determine the degree of change.

### ASSESSMENT OF LANGUAGE

Numerous researchers have developed both instruments and systems for assessing language development in young children. These include formal and informal methods for ascertaining a child's grasp and developmental stage in both receptive and expressive language.

Various instruments serve the needs of special groups of children, and no universal test is either available or desirable. In selecting a satisfactory instrument for use with the visually impaired child, certain criteria are needed. Frequently, an adaptation can be made without detriment to the reliability and validity of the measurement. For example, three dimensional objects sometimes can be substituted for pictures allowing the child to utilize other senses in identifying objects within reality. Care must be taken that any objects selected be an experiential part of the child's real world. Small plastic imitations, for example, seldom simulate the real thing.

A language development checklist incorporating some of these adaptations was developed for this study. The percentage of items accomplished by age group for each of the context areas will be reported for this checklist.

The provided list of tests (Appendix C) is merely suggestive. Others, such as the total measurement schedules prepared by Levenstein (1975), Hess and Shipman (1965), Caldwell (1969), and Schaefer (1969) for home-based programs also can be used to advantage.

Lauren

# 7 results and discussion

## Developmental Checklists

Due to circumstances beyond our control a decision was made to analyze only posttest data because the post data returned were most complete. A revised developmental checklist was formed by combining the checklists, and some items suggested by field participants were added. The untreated items are identified by an asterisk. All of the visually impaired subjects who are reported as having accomplished a task have had a minimum of one year intervention.

Though usable data were unavailable for many areas on either checklist A or B for sighted subjects below the ages of three to four, the available sample of older sighted subjects consistently met the criterion that more than 50% of the subjects available be able to accomplish the checklist item appropriate for their age cohort. In the majority of subjects, 100% accomplishment was achieved.

The revised developmental checklist was compiled with representative items from both checklists available for each area (although the majority of items came from original checklist A, which participants in the field reported to be easier to use). The results are based on this revised checklist. The percentages accomplished by age level for each sighted subject, blocked by age norm for visually impaired subjects, are reported. It is anticipated that these may form a reference for future examination of apparent differences at certain age levels between blind and sighted children or serve as a source for the development of age appropriate norms. Copies of the original checklists are available on request from the author.

Table 8 for all areas shows the percentage of items observable for blind children for five age levels at each of the suggested age appropriate norms. Inspection of the diagonals in these tables show that a progressively smaller percentage of subjects was able to demonstrate the suggested appropriate behaviors with increasing age. However, at the five-year level, the trend of accomplishments tends to be closer to the expected age appropriate level than at the middle ages (three and four years). Because these results are based on a rather large sample at each age level through the combining of checklists A & B, this trend tends to suggest that, with earlier and longer intensive intervention, some of the developmental delays can be compensated for.

## Pre-academic Behaviors & Skills Checklists

This checklist was analyzed only for the visually impaired children combined across ages, a total of six subjects who had partially usable data. Considerable variation existed in the items which were attained or recently introduced. Therefore, summary percentages are provided for five areas in Table 9. The reader should bear in mind that all subjects had at least one year of intervention by the time the data were collected. The score analyzed was the percentage accomplished for each of the items making up the main content areas.

## Table 8

## Combined Checklists (A & B)

| Age Appropriate for Sighted Norms (at or below 1 yr. to 5 yrs.) | Age of Visually Impaired Subjects | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| **Gross Motor** | | | | | |
| 1 | 96.00 | 98.00 | 100.00 | 100.00 | 100.00 |
| 2 | 42.22 | 92.26 | 98.56 | 88.11 | 100.00 |
| 3 | 33.25 | 25.00 | 77.33 | 76.00 | 100.00 |
| 4 | 13.83 | 37.50 | 25.00 | 74.32 | 93.20 |
| 5 | - | - | - | 51.42 | 82.00 |
| **Fine Motor** | | | | | |
| 1 | 89.14 | 100.00 | 100.00 | 100.00 | 98.46 |
| 2 | 56.90 | 89.50 | 93.00 | 92.73 | 100.00 |
| 3 | - | 62.50 | 80.00 | 82.35 | 100.00 |
| 4 | - | - | 11.11 | 75.00 | 100.00 |
| 5 | - | - | - | 65.55 | 66.67 |
| **Drawing** | | | | | |
| 1 | - | - | - | - | - |
| 2 | 50.00 | 77.86 | 54.00 | 74.56 | 95.75 |
| 3 | 33.33 | 50.00 | 50.00 | 68.75 | 100.00 |
| 4 | - | 25.00 | - | 52.68 | 67.00 |
| 5 | - | - | - | 22.50 | 60.00 |
| **Puzzles** | | | | | |
| 1 | - | - | - | - | - |
| 2 | 80.00 | 81.82 | 85.71 | 89.00 | 100.00 |
| 3 | 22.00 | 56.67 | 28.00 | 80.00 | 100.00 |
| 4 | - | - | - | - | - |
| 5 | - | - | - | - | - |

|  |  | Age of Visually Impaired Subjects |  |  |  |  |
|---|---|---|---|---|---|---|
|  | Cube Building | 1 | 2 | 3 | 4 | 5 |
| Age Appropriate for Sighted Norms (at or below 1 yr. to 5 yrs.) | 1 | - | - | - | - | - |
|  | 2 | 54.17 | 73.23 | 58.25 | 77.21 | 87.25 |
|  | 3 | - | - | - | - | - |
|  | 4 | - | - | - | - | - |
|  | 5 | - | - | - | - | - |
|  | Self-Help Skills |  |  |  |  |  |
|  | 1 | 100.00 | 97.25 | 100.00 | 100.00 | 100.00 |
|  | 2 | 81.15 | 82.77 | 96.69 | 98.08 | 100.00 |
|  | 3 | 8.33 | 44.88 | 45.75 | 66.37 | 100.00 |
|  | 4 | - | - | - | 52.00 | 97.92 |
|  | 5 | - | - | - | 46.50 | 68.00 |
|  | Perceptual Development |  |  |  |  |  |
|  | 1 | 87.46 | 96.63 | 100.00 | 86.34 | 95.13 |
|  | 2 | 77.80 | 77.40 | 94.00 | 85.90 | 100.00 |
|  | 3 | 19.33 | 59.17 | 40.83 | 65.47 | 100.00 |
|  | 4 | - | 8.00 | - | 52.21 | 81.08 |
|  | 5 | - | - | - | 20.45 | 82.73 |
|  | Conceptual Development |  |  |  |  |  |
|  | 1 | 80.50 | 86.93 | 100.00 | 94.72 | 100.00 |
|  | 2 | 50.00 | 66.00 | 89.56 | 80.00 | 100.00 |
|  | 3 | - | 54.40 | 36.00 | 66.10 | 100.00 |
|  | 4 | - | 27.33 | 16.67 | 59.96 | 91.00 |
|  | 5 | - | - | - | 60.67 | 83.00 |

Table 8 (continued)

| Age Appropriate for Sighted Norms (at or below 1 yr. to 5 yrs.) | Age of Visually Impaired Subjects | | | | |
|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| Social | | | | | |
| 1 | 82.62 | 84.38 | 96.77 | 96.15 | 100.00 |
| 2 | 79.83 | 84.17 | 80.00 | 84.82 | 100.00 |
| 3 | 37.50 | 66.50 | 58.00 | 71.85 | 100.00 |
| 4 | - | 14.29 | 28.57 | 68.47 | 88.29 |
| 5 | - | - | 20.00 | 83.00 | 90.00 |

## Table 9

Summary Results for Pre-academic Behavior and Skills Checklist

| | | Attained | | Partially Attained | | Begun | | Not Introduced | | Not Applicable | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD | $\bar{X}$ | SD |
| Knowledge--Self | 9 items | 76.89 | 23.47 | 2.78 | 8.33 | 2.78 | 8.33 | 17.56 | 22.19 | | |
| Social Emotional Growth | 28 items | 45.71 | 17.83 | 25.57 | 21.62 | 28.18 | 15.47 | | | | |
| Language | 26 items | 48.65 | 39.22 | 15.65 | 19.86 | 12.50 | 16.20 | 18.27 | 29.63 | .96 | 4.90 |
| Mathematics | 13 items | 51.23 | 40.11 | 14.69 | 24.45 | 9.62 | 21.74 | 24.31 | 32.82 | | |
| Science | 9 items | 55.56 | 24.30 | 11.11 | 18.16 | 33.33 | 12.50 | | | | |
| Social Studies | 5 items | 55.00 | 11.18 | 20.00 | 11.18 | 25.00 | | | | | |
| Art | 18 items | 45.83 | 15.46 | 8.78 | 15.49 | 25.44 | 1.89 | | | 19.89 | 11.10 |
| Music | 8 items | 96.88 | 8.84 | 3.13 | 8.84 | | | | | | |
| Gross Motor | 12 items | 89.58 | 12.87 | 10.42 | 12.87 | | | | | | |
| Fine Motor | 42 items | 70.24 | 33.69 | 14.02 | 15.74 | 4.86 | 22.87 | 2.48 | 13.88 | 6.21 | 11.63 |
| Visual Skills | 30 items | 40.00 | 30.51 | 6.83 | 10.36 | 10.83 | 14.4 | 19.93 | 21.53 | 25.00 | |
| Auditory Skills | 13 items | 100.00 | | | | | | | | | |
| Body Awareness | 12 items | 95.83 | 9.73 | 2.08 | 7.22 | 2.08 | 7.22 | | | | |

## Table 10

## SELF-CONCEPT

| | | | | | |
|---|---|---|---|---|---|
| Raia I | a = 23-25 | Lowest 25% | (Poor) | a = 39-77 | Raia II and Green Scales |
| | b = 26-52 | Mid 50% | (Normal) | b = 78-156 | |
| | c = 52-56 | Highest 25% | (Strong) | c = 157-195 | |

Percent Accomplished

| | % a | N | % b | N | % c | N | % a | N | % b | N | % c | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Blind** | | | | | | | | | | | | |
| Raia I, II, Green | | | | | | | | | | | | |
| Combined 0-3 yrs. | | | | | | | | | | | | |
| Raia I (146) | 15.30 | 13 | 84.31 | 13 | | | | | | | | |
| Combined 3 yrs. + | | | | | | | | | | | | |
| Raia I (190) | | | 70.00 | 7 | 30.00 | 3 | | | | | | |
| Raia & Green (191) | | | 90.00 | 9 | 10.00 | 1 | | | | | | |
| **Legally Blind** | | | | | | | | | | | | |
| Combined 0-3 | | | | | | | | | | | | |
| Raia I (146) | | | 100.00 | 10 | | | | | | | | |
| Combined 3 yrs. + | | | | | | | | | | | | |
| Raia I (190) | 20.00 | 5 | 40.00 | 5 | 40.00 | 5 | | | 75.00 | 4 | 25.00 | 4 |
| Raia & Green (191) | | | 100.00 | 4 | | | | | 100.00 | 4 | | |
| **Sighted** | | | | | | | | | | | | |
| 1971 3-4 yrs. (146) | | | 90.00 | 10 | | | | | | | | |
| (147) | | | 100.00 | 1 | | | | | | | | |
| 1972 2-3 yrs. (146) | | | 88.00 | 9 | 12.00 | 9 | | | | | | |
| (147) | | | 100.00 | 3 | | | | | | | | |
| 1973 1-2 yrs. (146) | | | 100.00 | 5 | | | | | | | | |
| (147) | 100.00 | 1 | | | | | | | | | | |
| Combined (146) | | | 97.00 | 36 | .03 | 36 | | | 100.00 | 1 | | |
| (147) | 20.00 | 5 | 80.00 | 5 | | | | | | | | |
| 3 yrs. + | | | | | | | | | | | | |
| 1969 5 yrs. (190) | | | 95.00 | 19 | 5.00 | 19 | 10.50 | 19 | 79.00 | 19 | 10.50 | 19 |
| (191) | | | 100.00 | 19 | | | | | 100.00 | | | |
| 1970 4 yrs. (190) | | | 94.00 | 63 | 7.00 | 55 | | | 93.00 | 55 | 7.00 | 55 |
| (191) | 2.00 | 61 | 98.00 | 53 | | | 2.00 | 54 | 96.00 | 54 | 2.00 | 54 |
| 1971 3 yrs. (190) | | | 95.00 | 19 | 5.00 | 19 | | | 100.00 | 18 | | |
| (191) | 23.00 | 17 | 90.00 | 17 | 6.00 | 17 | 25.00 | 16 | 75.00 | 16 | | |
| Combined (Res. N=0) | | | | | | | | | | | | |
| Public (190) | | | 94.00 | 99 | 6.00 | 99 | 2.00 | 98 | 92.00 | 98 | 6.00 | 98 |
| (191) | 5.00 | 94 | 94.00 | 94 | 1.00 | 94 | 5.00 | 94 | 94.00 | 94 | 1.00 | 94 |

The results show that visually impaired children either partially or fully attained a majority of items. However, five categories contained items which were not introduced to them even after the minimum of one year of intervention. These were items which were judged by the on-site teacher to be least appropriate for the student. With this small sample, no consistent explanation could be discerned for the lack of an item or area to be introduced for intervention.

On the basis of these results, the developmental checklist is recommended for early use with visually impaired students. Because the majority of these pre-academic skills can be mastered by visually impaired children, this instrument forms an appropriate basis for the measurement of pre - post differences in intervention programs.

## Self-Concept

The hypothesis that blind and legally blind children differ from sighted children in self-concept is not supported by the data as measured by the Raia I and II and Green self-concept scales used in this study. (See Table 10)

## Objectives (Birth to Three Years)

Prior to the data analyses, it had been hoped that a level of vision by age analysis could be performed. However, more than 90% of the subjects for whom data are available were in the two and one-half to three year old range. Thus, data were summarized for levels of vision only. No systematic differences were observed in these age groups (by level of vision) for whom data was available. The results are presented in Table 11 and show that the sighted group at this age level was systematically able to do more than 90% of the objectives. The blind subjects at this age level accomplished fewer of the objectives than either the legally blind subjects or the normally sighted group. The main problem area for both visually impaired groups was toilet training, where about one-third of the children in both groups were able to accomplish the objectives.

Table 11

The Mean Percentage of Objectives Accomplished
By Three Levels of Vision

Birth - 3 Years Objectives

| | | Blind N = 19 | | Legally Blind N = 19 | | Sighted N = 46 | |
|---|---|---|---|---|---|---|---|
| Area | No. Items | $\bar{X}$% | SD | $\bar{X}$% | SD | $\bar{X}$% | SD |
| Motor Development | 33 | 79.03 | 24.13 | 95.21 | 13.20 | 98.40 | 8.70 |
| Personal Social | | | | | | | |
| Eating | 12 | 67.08 | 35.75 | 89.25 | 25.18 | 95.42 | 15.88 |
| Sleeping | 4 | 100.00 | 0 | 100.00 | 0 | 100.00 | 0 |
| Elimination | 7 | 31.71 | 8.88 | 36.86 | 12.28 | 92.86 | 18.70 |
| Physical & Emotional Bases of Behavior | 82 | 75.89 | 30.06 | 89.32 | 24.02 | 91.61 | 20.42 |
| Vision Training | 7 | 82.57* | 30.43 | 100.00 | 0 | 100.00 | 0 |

*Applicable for only a small number of subjects

These early intervention objectives are critical to later successful academic performance. Failure to achieve some objectives, i.e., toilet training, may even prevent enrollment in some programs. The data seem to suggest that earlier case finding and more systematic intervention is indicated, including parent training in behavior management and child development.

## Objectives (Three Years to School Readiness)

The item analyses of the objectives for three years to school readiness were begun by stratifying the available pool of subjects into five groups (three ages of sighted students and two levels of vision with ages combined in each). Of those students for whom the objectives were judged to be applicable, the percentage accomplished was calculated within each group. Considerable variation existed in objectives accomplished within each of the five groups for the objectives within each subject area. The range accomplished was from 0 to 100%.

To construct the final version of the objectives to be used, the "normal vision" sample served as the basis for normative data and then was compared with the visually impaired students against that data. Selection of objectives which would be appropriate only for visually impaired children was never the goal and was not statistically indicated. No consistent trends for this population could be discerned in these preliminary data analyses.

The criterion used for item selection specified that any objective that could not be met by at least half of the normally sighted children within our oldest age group (the six-year-olds) would be eliminated from the final version. On this basis, 25 objectives were eliminated.

On a theoretical and statistical basis, the remaining items then were divided into an easier set and a more difficult set. This ordering of items, while not providing a completely sequential hierarchy of objectives, should assist teachers to develop valid approaches to diagnostic and prescriptive program plans for children. It was hypothesized in the data analysis that this division of easy and difficult items should be replicated in the remaining four groups and that the two younger age groups should be able to achieve a lower percentage of the objectives than the six-year-olds. The results show that these data consistently follow the predicted developmental differences for the three age groups. (Table 12)

The two visually impaired groups then were compared with these three age groups and, in general, it was found that they do not follow the same pattern as any of the normally sighted age groups. The blind children seem to do better than the six-year-olds in physical education, music, and tactual performance, but less proficiently in most of the other areas. In most of the subject areas, however, the blind children seem to be able to meet a higher percentage of the objectives than the legally blind students, although there is considerable variation even between these two groups. The explanation of this result is most consistent with the high percentage of five-year-olds included in the visually impaired group who have had the benefit of intervention.

## Table 12

## Instructional Objectives
## Three Years to School Readiness

### Final (Revised) Version

### ART

Easier items: 1,2,3,4,5,6 — Harder items: 7,9(8),11(9),13(10)

| (n=4) | $\bar{X}$% | SD | $\bar{X}$% | SD |
|---|---|---|---|---|
| Sighted | | | | |
| 1969 | 95.50 | 5.21 | 72.50 | 8.02 |
| 1970 | 87.00 | 8.37 | 81.25 | 0.96 |
| 1971 | 78.50 | 11.22 | 64.25 | 10.14 |
| Blind | 68.83 | 14.43 | 60.50 | 15.09 |
| Legally Blind | 48.00 | 19.85 | 47.00 | 8.24 |

### BODY AWARENESS

All items easy

| (n=10) | $\bar{X}$% | SD |
|---|---|---|
| Sighted | | |
| 1969 | 99.40 | 1.90 |
| 1970 | 92.30 | 2.95 |
| 1971 | 83.90 | 4.79 |
| Blind | 96.30 | 6.40 |
| Legally Blind | 83.00 | 5.33 |

### BRAILLE READINESS

Easier items: 24(1),25(2),26(3)27(4), 28(5) — Harder items: 30(6),31(7),32(8)

| (n=5) | $\bar{X}$% | SD | (n=3) $\bar{X}$% | SD |
|---|---|---|---|---|
| Sighted | | | | |
| 1969 | 100.00 | 0.0 | 100.00 | 0.0 |
| 1970 | 86.40 | 18.62 | 69.00 | 5.20 |
| 1971 | 100.00 | 0.0 | 100.00 | 0.0 |
| Blind | 100.00 | 0.0 | 79.00 | 20.78 |
| Legally Blind | 89.60 | 5.86 | 64.67 | 17.90 |

Table 12 (continued)

## LANGUAGE ARTS

Easier items: 33(1),34(2),35(3),36(4),
38(5)
*6,7,8,9

Harder items: 37(10),47(11),49(12),51(13),
54(14)

| | $\overline{X}$% | SD | $\overline{X}$% | SD |
|---|---|---|---|---|
| Sighted | | | | |
| 1969 | 86.40 | 9.69 | 61.60 | 6.54 |
| 1970 | 85.20 | 3.77 | 64.80 | 20.34 |
| 1971 | 93.20 | 9.55 | 42.80 | 23.08 |
| Blind | 87.40 | 12.07 | 87.60 | 13.37 |
| Legally Blind | 75.80 | 8.70 | 60.80 | 21.60 |

## MATHEMATICS

Easier items: 55(3),56(4),57(5),58(6),
60(7),61(9)
*1,2,8,10,11,12,13,14,
15,16

Harder items: 62(17),63(18),64(19),65(23),
66(24)
*20,21,22

| | $\overline{X}$% | SD | $\overline{X}$% | SD |
|---|---|---|---|---|
| Sighted | | | | |
| 1969 | 90.00 | 12.39 | 63.00 | 8.37 |
| 1970 | 82.33 | 10.93 | 40.00 | 9.97 |
| 1971 | 78.50 | 16.06 | 40.80 | 13.10 |
| Blind | 87.50 | 11.10 | 37.40 | 15.90 |
| Legally Blind | 75.67 | 12.83 | 43.40 | 12.07 |

## MUSIC

Easier items: 72(1),73(2),75(3),76(4)

Harder items: 74(5),77(6)
**78,79

| | $\overline{X}$% | SD | $\overline{X}$% | SD |
|---|---|---|---|---|
| Sighted | | | | |
| 1969 | 77.25 | 7.89 | 61.50 | 7.23 |
| 1970 | 64.75 | 10.63 | 58.25 | 13.05 |
| 1971 | 49.50 | 19.16 | 49.75 | 21.82 |
| Blind | 82.00 | 7.35 | 60.00 | 21.73 |
| Legally Blind | 76.25 | 18.19 | 44.75 | 24.27 |

Table 12 (continued)

## PERCEPTUAL DEVELOPMENT

Easier items: 80(1),81(2),82(3),83(5)
84(6),87(8),88(9),89(10)
90(11)
*4

Harder items: 85(7),91(12),92(13),94(14),
95(15)
**86,93

| (n=9) | $\overline{X}$% | SD | (n=6) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 98.33 | 2.50 | | 88.33 | 5.16 |
| 1970 | 92.22 | 5.93 | | 82.17 | 9.41 |
| 1971 | 77.89 | 10.68 | | 61.83 | 18.96 |
| Blind | 94.11 | 7.47 | | 71.50 | 19.70 |
| Legally Blind | 73.67 | 22.06 | | 53.17 | 22.42 |

## PHYSICAL EDUCATION

Easier items: 97(1),98(2),100(3),
101(4)

Harder items: 99(5),102(6),103(7),104(8),
105(9)

| (n=4) | $\overline{X}$% | SD | (n=5) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 93.75 | 2.50 | | 93.00 | 4.47 |
| 1970 | 84.50 | 12.01 | | 86.20 | 4.92 |
| 1971 | 70.00 | 7.62 | | 71.00 | 5.61 |
| Blind | 95.50 | 9.00 | | 81.20 | 15.55 |
| Legally Blind | 82.25 | 9.32 | | 66.20 | 3.70 |

## PRESCHOOL DEVELOPMENTAL

Easier items: 106(1),107(2),108(3),
116(10),118(12),119(13)
**120,122,123

Harder items: 109(4),110(8),111(9),112(15),
113(16),114(17),117(11)
**115,121

| (n=9) | $\overline{X}$% | SD | (n=9) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 100.00 | 0.0 | | 78.00 | 13.01 |
| 1970 | 94.44 | 3.13 | | 68.78 | 21.73 |
| 1971 | 81.78 | 10.91 | | 56.22 | 18.82 |
| Blind | 84.67 | 10.09 | | 54.00 | 27.49 |
| Legally Blind | 80.33 | 15.38 | | 52.22 | 24.96 |

Table 12 (continued)

## SCIENCE

Easier items: 125(1),128(3),129(2),
132(16)
**134

Harder items: 124(10),126(7),127(8),130(9),
133(11)
**131

| (n=5) | $\overline{X}$% | SD | (n=6) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 90.00 | 2.83 | | 82.67 | 1.97 |
| 1970 | 76.00 | 14.98 | | 78.83 | 14.46 |
| 1971 | 63.60 | 16.80 | | 63.31 | 16.92 |
| Blind | 60.20 | 13.81 | | 74.33 | 10.73 |
| Legally Blind | 44.80 | 8.11 | | 47.33 | 11.24 |

## SOCIAL EDUCATION & CITIZENSHIP

Easier items: 135(1),136(2),137(3),
138(4),139(5),140(6),
142(7)

Harder items: 141(8),144(9),146(10),
147(11),148(12)
**143,145

| (n=7) | $\overline{X}$% | SD | (n=7) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 98.57 | 2.44 | | 91.29 | 2.87 |
| 1970 | 79.57 | 7.02 | | 78.14 | 7.52 |
| 1971 | 72.86 | 2.61 | | 66.00 | 8.21 |
| Blind | 77.71 | 11.73 | | 66.71 | 15.79 |
| Legally Blind | 62.00 | 9.33 | | 55.29 | 7.20 |

## SOCIAL STUDIES

Easier items: 150(1),151(2),152(3),
153(4),158(5)
**149

Harder items: 154(7),155(8),156(9),
157(10),159(6)

| (n=6) | $\overline{X}$% | SD | (n=5) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 92.00 | 4.56 | | 64.40 | 8.05 |
| 1970 | 64.50 | 20.28 | | 47.80 | 8.11 |
| 1971 | 62.33 | 13.03 | | 36.00 | 14.23 |
| Blind | 71.56 | 16.12 | | 39.40 | 27.67 |
| Legally Blind | 42.50 | 16.51 | | 17.80 | 14.34 |

Table 12 (continued)

## TACTUAL AWARENESS

Easier items: 160(1),161(2),162(3), 163(4),164(5),166(6), 174(7),175(9)

Harder items: 165(8),167(10),168(11), 169(12),170(13),173(16)

| (n=8) | $\overline{X}$% | SD | (n=7) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 96.50 | 2.93 | | 85.43 | 5.77 |
| 1970 | 83.75 | 13.27 | | 85.29 | 9.16 |
| 1971 | 85.13 | 11.87 | | 67.86 | 16.71 |
| Blind | 98.88 | 3.18 | | 80.29 | 8.64 |
| Legally Blind | 74.50 | 17.86 | | 69.14 | 8.25 |

## VISION STIMULATION

Easier items: 181(6),182(7),183(8), 184(9),187(12),188(13), 189(14)

Harder items: 176(1),177(2),178(3),179(4), 180(5),185(10),186(11)

| (n=7) | $\overline{X}$% | SD | (n=7) | $\overline{X}$% | SD |
|---|---|---|---|---|---|
| Sighted | | | | | |
| 1969 | 99.29 | 1.89 | | 86.43 | 7.10 |
| 1970 | 96.57 | 2.30 | | 87.29 | 11.60 |
| 1971 | 70.29 | 6.45 | | 57.57 | 9.24 |
| Blind | 78.57+ | 39.34 | | 75.00 | 35.36 |
| Legally Blind | 81.00 | 8.68 | | 60.86 | 21.04 |

+only applicable for small percent of blind subjects

*Added objective, not field tested
**Omitted from Revised Intervention
New item numbers shown in parentheses

## Language Development Vocabulary Inventory

The vocabulary inventory was used primarily for four two-year-old blind children and partial data were available for three-year-olds. The results, presented in Table 13, show that these youngsters as a group do not exhibit much vocabulary. It should be noted that although these children have been identified, intervention for them was limited to a social worker working with parents. The appropriateness and usefulness of this assessment instrument cannot be evaluated adequately with this small pool of subjects. However, if the data can be replicated, the results may show that visually impaired children demonstrate an early developmental lag in language acquisition.

Table 13

Language Development Vocabulary Inventory Results

| Attained %<br>Category | Age | 100%<br>a | 75%<br>b | 50%<br>c | 25%<br>d | 0<br>e | Omit |
|---|---|---|---|---|---|---|---|
| Food | 2 | 6.25 | 0 | 25.00 | 31.25 | 37.50 | |
| | 3 | 2.33 | 18.67 | 44.67 | 11.67 | 18.67 | |
| Utensils | 2 | 0 | 43.75 | 0 | 25.00 | 31.25 | |
| | 3 | 16.33 | 44.67 | 32.67 | 2.33 | 2.33 | |
| Clothing | 2 | 0 | 12.50 | 0 | 50.00 | 37.50 | |
| | 3 | 14.00 | 43.00 | 28.33 | 14.00 | 0 | |
| Toys/Play | 2 | 0 | 0 | 12.50 | 6.25 | 81.25 | |
| | 3 | N = 0 | | | | | |
| Furniture | 2 | 0 | 0 | 12.50 | 43.75 | 37.50 | 6.25 |
| | 3 | N = 0 | | | | | |
| Body Parts | 2 | 0 | 0 | 37.50 | 25.00 | 31.75 | 6.25 |
| | 3 | N = 0 | | | | | |
| Names | 2 | 18.75 | 25.00 | 12.50 | 0 | 43.75 | |
| | 3 | N = 0 | | | | | |
| Self-Perception | 2 | 0 | 0 | 0 | 56.25 | 43.75 | |
| | 3 | N = 0 | | | | | |
| Commands | 2 | 0 | 0 | 6.25 | 37.50 | 56.25 | |
| | 3 | N = 0 | | | | | |
| Thermal Awareness | 2 | 43.75 | 12.50 | 0 | 18.75 | 25.00 | |
| | 3 | N = 0 | | | | | |
| Spatial Awareness | 2 | 0 | 6.25 | 6.25 | 56.25 | 31.25 | |
| | 3 | N = 0 | | | | | |
| Temporal Awareness | 2 | 0 | 0 | 12.50 | 12.50 | 75.00 | |
| | 3 | N = 0 | | | | | |
| Idiomatic Expression | 2 | N = 0 | | | | | |
| | 3 | N = 0 | | | | | |
| Songs | 2 | N = 0 | | | | | |
| | 3 | N = 0 | | | | | |

## Language Development Checklists D, E, & F

Data suitable for analysis were available for three age groups of blind subjects. The results are presented in Table 14. The expected increase of percentage accomplished by age levels is consistently observed for each of the content areas. However, even at the four-year-old level, very few subjects within each of the main content areas showed better than 90% achievement of language behaviors. The big increase in observed language development occurs between three and four years of age, rather than in the two to three year age group as is the case with sighted subjects. Exceptions are daily living skills and pre-mobility, where the biggest increase occurred at the three year level. Because the material covered by the three different checklists followed similar patterns, the checklists were combined into one instrument utilizing all items. It is hypothesized that the older visually impaired group gets more consistent intervention by being enrolled in school programs than do children under three, for whom intervention usually is limited to infrequent contact by a social worker, visiting teacher, or nurse. The observed data are very consistent with the above model of intervention. Further research should be planned to investigate whether more systematic intervention at a younger age can make the developmental pattern of the visually impaired subjects follow that of the sighted subjects more closely.

Table 14

Language Development Checklists Results

| Attained % | | 100% | 75% | 50% | 25% | 0 | |
|---|---|---|---|---|---|---|---|
| Category | Age | a | b | c | d | e | Omit |
| Checklist D | | | | | | | |
| Syntax | 2 | 0 | 0 | 40.00 | 13.33 | 26.67 | |
| | 3 | 4.67 | 42.67 | 40.00 | 11.67 | 0 | |
| | 4 | 73.33 | 12.00 | 10.75 | 0 | 0 | |
| Family | 2 | 8.33 | 0 | 50.00 | 0 | 25.00 | 16.67 |
| | 3 | 16.33 | 44.67 | 32.67 | 2.33 | 2.33 | |
| | 4 | 80.67 | 6.33 | 11.67 | 0 | 0 | |
| Home | 2 | 0 | 8.33 | 58.33 | 0 | 33.33 | |
| | 3 | 14.00 | 43.00 | 28.33 | 14.00 | 0 | |
| | 4 | 70.00 | 14.33 | 5.33 | 8.67 | 0 | |
| Body | 2 | 8.33 | 8.33 | 33.33 | 16.67 | 33.33 | |
| | 3 | 11.67 | 35.67 | 45.00 | 4.67 | 2.33 | |
| | 4 | 77.00 | 12.33 | 9.00 | 1.00 | 1.00 | |
| Foods | 2 | 0 | 0 | 33.33 | 33.33 | 25.00 | 8.33 |
| | 3 | 2.33 | 18.67 | 44.67 | 11.67 | 18.67 | |
| | 4 | 61.00 | 21.00 | 7.33 | 10.33 | | |
| Animals | 2 | 0 | 0 | 50.00 | 8.33 | 41.67 | |
| | 3 | 0 | 21.00 | 64.00 | 14.00 | 0 | |
| | 4 | 46.33 | 15.33 | | | | |
| Clothing | 2 | 0 | 12.50 | 37.50 | 12.50 | 37.50 | |
| | 3 | 7.00 | 46.00 | 35.00 | 7.00 | 3.50 | |
| | 4 | 71.00 | 13.00 | 10.50 | 3.00 | 0 | |
| Numbers | 2 | 0 | 0 | 41.67 | 8.33 | 37.50 | 12.50 |
| | 3 | 10.50 | 12.83 | 62.67 | 11.67 | 0 | |
| | 4 | 66.17 | 16.00 | 13.03 | 3.00 | 0 | |
| Checklist E | | | | | | | |
| Environment | 2 | 1.67 | 1.67 | 30.00 | 23.33 | 43.33 | |
| | 3 | 6.53 | 29.73 | 47.73 | 10.27 | 2.80 | |
| | 4 | 67.73 | 13.20 | 11.60 | 4.00 | 0 | |

Table 14 (continued)

Language Development Checklists Results

| Attained % | | 100% | 75% | 50% | 25% | 0 | Omit |
|---|---|---|---|---|---|---|---|
| Category | Age | a | b | c | d | e | |
| Checklist F | | | | | | | |
| Daily Living Skills | 2 | 7.69 | 3.85 | 46.15 | 13.46 | 26.92 | 1.92 |
| | 3 | 65.46 | 8.15 | 1.08 | 0 | 0 | |
| | 4 | 81.23 | 4.23 | 1.69 | 10.23 | 0 | |
| Pre-Mobility | 2 | 47.73 | 2.27 | 25.00 | 0 | 25.00 | |
| | 3 | 71.64 | 23.64 | 0 | 3.82 | 0 | |
| | 4 | 74.73 | 1.45 | 0 | 22.45 | 0 | |
| Gross | 2 | 25.00 | 25.00 | 25.00 | 0 | 25.00 | |
| | 3 | 33.50 | 42.25 | 12.25 | 4.25 | 0 | |
| | 4 | 78.75 | 8.75 | 0 | 11.00 | 0 | |
| Fine | 2 | 25.00 | 25.00 | 25.00 | 0 | 25.00 | |
| | 3 | 25.67 | 35.00 | 21.00 | 7.00 | 0 | |
| | 4 | 70.00 | 14.33 | 2.00 | 9.33 | 0 | |

## Language Development Objectives

Language Development strategies were divided into 12 areas: auditory language, receptive language, imitative language, expressive language, integrative-expressive language, language enrichment (specific concepts and constructs), language-total process, daily living skills, pre-mobility, gross motor development, fine motor development, and supplemental activities

Data for the language development objectives were obtained for 22 blind subjects on a pre - post paradigm. A combined sample of 48 legally blind and normally sighted subjects is provided for pre - post comparisons. The sample consisted of a combined three-and four-year-old age group for both levels of vision. This separation of vision levels was made to demonstrate any possible effects of a complete lack of eye contact and visual input on language development.

The number of achievements accomplished on the pre and post language development objectives was used (as the raw scores) for the analyses. The raw score was utilized because the pre - post changes for some students extended from "no" to "not appropriate" and for others from "not appropriate" to "yes." By inspecting the data, it can be demonstrated that a higher percentage (an average of six times that of blind subjects) of the sighted-legally blind (combined) children was able to meet all objectives in 12 areas of the pretests. This same effect also is observed on the posttest. Within each of the two vision levels, a t-test for correlated means was performed using the difference scores for pre - post items in each of the areas as the data unit. The results for each of the two levels of vision are presented in Table 15. An item-by-item pre - post improvement analysis within each of the 12 areas on which this table is based can be obtained from the author on request.

The results show that significant increases in objectives over the pre - post period were made by both vision levels on all scales except on fine motor control for the sighted-legally blind (combined) group. Although the blind children showed significant increases in objectives met, they remained behind the sighted-legally blind group

Table 15

### Summary Results of Language Development Objectives Analyses for Blind and Combined Sighted and Legally Blind Children

| | | BLIND (n=22) | | | | | | Combined Sighted & L.B. (n=48) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Pre Test | | Post Test | | | | Pre Test | | Post Test | | | |
| Area | No. Items | $\overline{X}$ | SD | $\overline{X}$ | SD | t | df | $\overline{X}$ | SD | $\overline{X}$ | SD | t | df |
| 1. Auditory Language | 6 | 10.00 | 2.10 | 14.83 | 3.66 | 3.23 | *5 | 36.60 | 6.80 | 46.67 | 1.37 | 4.03 | *5 |
| 2. Receptive Language | 6 | 8.67 | 1.37 | 12.33 | 0.82 | 8.70 | **5 | 46.00 | 0.89 | 46.50 | 1.22 | 3.50 | *5 |
| 3. Imitative Language | 6 | 7.67 | 0.52 | 10.83 | 1.17 | 6.64 | **5 | 44.67 | 1.37 | 47.67 | 0.52 | 6.71 | **5 |
| 4. Expressive Language | 6 | 6.33 | 1.51 | 10.00 | 1.26 | 8.70 | *5 | 42.67 | 1.75 | 45.83 | 1.47 | 10.30 | **5 |
| 5. Integrative-Expressive | 7 | 3.57 | 0.53 | 5.71 | 1.25 | 4.67 | **6 | 41.45 | 2.57 | 43.71 | 1.89 | 3.05 | *6 |
| 6. Language Enrichment | 15 | 2.87 | 0.99 | 4.87 | 1.68 | 5.92 | **14 | 37.67 | 4.56 | 43.93 | 3.06 | 8.48 | **14 |
| 7. Language-Total Process | 9 | 3.60 | 1.35 | 6.90 | 2.33 | 6.98 | **9 | 38.90 | 5.65 | 44.00 | 4.47 | 4.47 | *9 |
| 8. Daily Living Skills | 13 | 7.54 | 2.40 | 12.46 | 3.04 | 9.39 | **12 | 40.54 | 1.76 | 41.85 | 1.86 | 4.98 | **12 |
| 9. Orientation & Mobility | 11 | 9.64 | 2.77 | 14.45 | 2.07 | 9.98 | **10 | 37.73 | 2.24 | 39.45 | 2.25 | 12.26 | **10 |
| 10. Gross Motor | 4 | 6.75 | 1.71 | 13.75 | 1.71 | 6.48 | **3 | 37.00 | 2.16 | 39.25 | 2.06 | 3.58 | *3 |
| 11. Fine Motor | 3 | 5.33 | 1.53 | 11.67 | 0.58 | 7.18 | **2 | 39.00 | 7.81 | 46.33 | 1.53 | 1.87 | 2 |
| 12. Supplemental Activities | 15 | 4.40 | 1.30 | 7.14 | 1.56 | 9.46 | **14 | 36.27 | 2.63 | 40.33 | 2.61 | 8.26 | **14 |

Note: Not all areas of intervention were used for all children

* significant at > .05 level
** significant at > .01 level

in terms of percentage of objectives met on the posttests. A mean score of 24 for the combined group would be equivalent to a score of 11 for the blind group. Because the pre - post instrument was carefully monitored at both administrations, it would appear that these differences are systematic. Many of the older combined subjects have a higher accomplishment level in meeting the objectives, and the magnitude of this difference continued despite a year of intervention. Further study should include a year of intervention for younger subjects, with analysis of outcomes to see if the magnitude of this difference could not be reduced.

Analyses of language data indicate several interesting patterns. For all components of language, with few exceptions, little growth is show in level A or B (100 to 50% achievement). For C, D, and E (49 to 0%), growth patterns are significant in each category generally. Examining these data, one notes that, for the areas of following commands, social relatedness, and family, and body awareness, significant scores were obtained by level A. It may be hypothesized that these scores reflect the child's world of experience in reality; negative or minimal results for this level also may indicate experiences not yet made real for these children.

Gains at levels C, D, and E indicate strong growth patterns which reflect experiences for children in the school program structures where specific teaching strategies become part of the child's daily reality learning. Consequently, one may infer that this program did indeed raise the child's level of competency on those factors stressed in the program. The question remains, had these same categories been introduced earlier in a systematic format, would gains for levels A and B be larger or is one dealing here with developmental processes beyond control of the experimental program?

## Implications of the Study

1. The need for early developmental assessment and diagnostic program planning is clearly supported by the findings of this study. It is further demonstrated that these early intervention programs must be longitudinal, interdisciplinary, and presented in an integrated schema.

2. It is important that these programs for young children be consistent, systematic, and complete in fostering the child's growth in all developmental processes.

3. This study points strongly to the significance of early parent education and counseling in order that the young visually impaired child may experience a world of stimulating reality from the earliest possible moment which promotes both cognitive and affective competency.

4. Because language remains a key to the child's ability to link experience and cognition, education programs for the visually impaired must make every effort to facilitate the child's acquisition of meaningful language.

5. Assessment of developmental levels and prescriptive approaches to intervention must be defined further to minimize and simplify overlap while recognizing that overlap is intrinsic in developmental processes. No area of growth is exclusive, i.e., stages of physical maturation support the development of language, self-awareness, sensorimotor development, and cognition.

6. There is a need to further replicate, test, and refine the pilot instruments and methodology used in this study.

7. Too many gaps in the data, small subject sample, and short intervention time prevent any powerful statistical treatments or reporting of true longitudinal effects of the intervention. However, further analyses are planned to study trends.

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# suggested strategies for early intervention

ALEXANDER

# assessment

When a child is referred for placement in a special early childhood program, the following information should be obtained for careful evaluation;

Medical assessment by appropriate medical specialists including diagnosis, severity, and prognosis for visual or hearing impairment and other health problems, and the identification of prescribed drugs, lenses, and treatment;

Family History and Attitudinal Survey to be completed by the program social worker and/or teacher;

Psychological assessment by a psychologist trained in the implications of blindness and how low degrees of residual vision affect cognitive, sensory, and motor function;

Social Maturity assessment using the Maxfield-Buchholz Social Maturity Scale (observation by teachers in addition to parent interviews);

Language Development Inventory to obtain (diagnostic) assessment of any language delay (administered by language development teacher);

Developmental checklists containing minimum behaviors appropriate for children from birth to six years of age in motor, language, sensory/perceptual, cognitive/creativity development, and self and social awareness.

## THE DEVELOPMENTAL CHECKLISTS

Three developmental checklists were field tested and selected items subsequently regrouped under the preceding five categories to provide a tool for determining generally the age group in which a child is functioning in each of the categories of development, thus providing meaningful direction for educational program planning. The items are arranged in an expected task order from birth to five years.

The checklists provide guidelines needed to assess each child's developmental level and basic skills in the identified areas, to generate educational goals, and to evaluate student progress. Changes in children are measured by recording behaviors achieved during the first month of instruction to establish baseline data and again at the end of the school year. Checklists also may be used as effective screening devices by observing and recording those tasks and behaviors appropriate for a child's age range, i.e., behaviors in the 18 months-to-three year range should be noted for a child of two. It is recommended that the observer begin at six to 12 months below the child's chronological age and continue until the items for three consecutive months above that level are not observable in any category. Data gained are not used to assign numerical scores or labels to children.

It is important to remember that behavior develops gradually. The age appropriate levels indicated are only mean (average) values, and reasonable deviations are no cause in themselves, for alarm. Referral to an appropriate specialist for further evaluation should be made 1) when a child's observable behavior (elicited or spontaneous) is three months below chronological age range, 2) when these behaviors are repeated on subsequent examination, and 3) when the child's responses appear to be normal on one side of the body and not on the other side, i.e., motor responses.

In summary, our goals in using any assessment are 1) to generate definition of individualized program plans for children, 2) to reassure parents of positive development, and 3) to teach them something about anticipated development and how best to support optimum progress for their children.

The checklist is an especially useful device for detecting any unusual delays in development that may show a need for further specialized assessment. For example, some reflexive behaviors diminish by certain ages, and others appear at predicted ages, i.e., babbling is a reflexive behavior for all babies from two to six months old. Deaf babies, however, may stop babbling between three and six months and, when this is noted, it may be a clear signal that the infant should be evaluated by a specialist.

It is not the function of the teacher, social worker, or nurse to diagnose a physical problem or impairment; it is their responsibility to refer the child to an appropriate specialist and to follow through appropriately.

Barraga (1976) states that knowing what to observe is critical in any setting. She identifies the following behaviors as providing pertinent information about visually handicapped children:

> (1) awareness of and attention to the surrounding environment and those within it, (2) seeking and exploratory patterns of movement, (3) use of the senses in moving and acquiring information, (4) use of language to elicit contact or to respond to encounters, (5) nature and variety of cues for self-directive and independent actions, and (6) extent to which the child originates behavior or adapts to materials or to people. (p. 89)

For additional assessment approaches and instruments used in this program, please refer to chapter 2 of this manual.

# Revised Developmental Checklist

Name of Child ____________________

Birthday ____________________

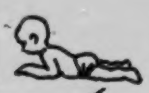
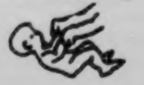
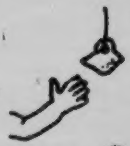
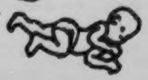
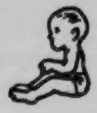
Impairment ____________________

____________________

Child's Age ____________________

Code

0 = appropriate behavior not observed at all
1 = appropriate behavior observed occasionally in classroom
2 = appropriate behavior observed at least 50% of time in classroom
3 = consistently appropriate behavior observed in classroom
4 = consistently appropriate behavior observed in all situations

| Age Appropriate | | Assessment Dates | | | |
|---|---|---|---|---|---|
| | | | | | |
| | MOTOR DEVELOPMENT | | | | |
| | Gross Motor (Pre-mobility) | | | | |
| 4 weeks | Noticeable motor tightening when picked up | | | | |
| | Tends to have preferred position when awake | | | | |
| 8 weeks | Readily lifts chin in prone position | | | | |
| 12 weeks | Raises head and shoulders with forearms | | | |  |
| | When pulled to sitting position by arms, head follows trunk | | | |  |
| 16 weeks | Holds head up when sitting supported | | | | |
| | Placed on flat surface, can maintain swimming position | | | | |
| | Reaches for object | | | |  |
| 20 weeks | Rolls over on side from back position | | | |  |
| | Sits supported in high chair | | | | |
| | Unable to crawl, tries to move by pivoting in a circular direction | | | | |
| | Wants to touch, stand and bounce | | | | |
| 32 weeks | Begins to sit unsupported | | | |  |
| | Can support entire weight on legs for short period | | | | |
| 36 weeks | Sits alone for a long time | | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Raises body to crawling position and may crawl backwards | | | |
| 40 weeks | Pulls self to sitting and standing position | | | |
| | Turns over on his back to watch a toy being moved | | | |
| 44 weeks | Crawls forward with abdomen off the floor | | | |
| 48 weeks | Can turn and pick up object while sitting | | | |
| | Walks sideways using support or forward with two hands held | | | |
| | Lowers body from standing to sitting by holding on to support | | | |
| 9 mos. | Takes several steps forward, held up under arms | | | |
| 9 1/2 mos. | Bends, holding support, picks up toy from floor and returns to standing position | | | |
| 10 mos. | Stands alone | | | |
| 11 mos. | Stands self up without using support | | | |
| | Creeps upstairs | | | |
| | Very active, little inhibition | | | |
| 12 mos. | Walks alone with stiff legs, feet wide apart | | | |
| 18 mos. | Climbs stairs holding rail | | | |
| | Goes down stairs creeping backward | | | |
| | Pulls and pushes toys while walking | | | |
| | Can throw ball without falling | | | |
| 21 mos. | Walks backwards | | | |
| | Begins to run and jump | | | |
| 2 yrs. | Walks up and down steps alone, 2 feet per step | | | |
| | Can kick a ball | | | |
| 2 1/2 yrs. | Walks on tiptoes | | | |
| | Jumps down with both feet | | | |

Name of Child ____________________

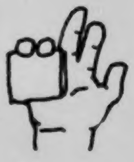
| Age Appropriate | | Assessment Dates | | | |
|---|---|---|---|---|---|
| | | | | | |
| 3 yrs. | Increased motor ability allows successful play | | | | |
| | Can stand on one foot for a few seconds | | | | |
| | Jumps off floor with feet together | | | | |
| | Goes upstairs with one foot per step | | | | |
| | Catches large ball with arms out straight | | | | |
| | Rides tricycle | | | | |
| | Walks a line for 10 feet | | | | |
| 4 yrs. | Hops on one foot | | | | |
| | Runs, steps, starts, turns | | | | |
| | Can carry a cup of water without spilling it | | | | |
| | Catches large ball with arms flexed at elbows | | | | |
| | Alternates feet going downstairs | | | | |
| 5 yrs. | Skips with both feet | | | | |
| | Marches in time to music | | | | |
| | Has body shift when throwing a ball | | | | |
| | Can climb on and off a bus unaided | | | | |
| | Without observable gross motor functions | | | | |
| | Orientation to Environment*<br>Indoors<br>Demonstrates knowledge of location of rooms, furnishings, and doors in classroom and restroom | | | | |
| | Knows where to put things away | | | | |
| | Uses clues to orient self<br>Auditory: traffic sounds, bell in ball, sound of dishes, running water | | | | |
| | Olfactory, i.e., smells of food, art materials, bathroom (disinfectant), bakery | | | | |

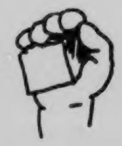
Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | | | | |
| | Textual and terrain, i.e., wall, chalkboard, carpet, linoleum, cement, grass | | | |
| | Travels independently from:<br>front door to school bus | | | |
| | school bus to school door | | | |
| | classroom to restroom | | | |
| | classroom to office | | | |
| | Can trail a wall | | | |
| | Outdoors<br>Reaction changes in lighting:<br>bright sunshine | | | |
| | darkness | | | |
| | cloudy-overcast | | | |
| | Reaction to bright light:<br>can detect the source | | | |
| | can attend to bright light | | | |
| | Object Perception<br>Select letter and number for each--<br>a. within arm's reach 1. Detects<br>b. at 6 feet 2. Describes<br>c. at 10 feet | | | |
| | Large stationary objects | | | |
| | Large moving objects | | | |
| | Small stationary objects | | | |
| | Small moving objects | | | |
| | A volleyball in the air | | | |
| | A basketball in the air | | | |
| | Another person's facial features | | | |
| | Tactual Awareness<br>Distinguishes between textures underfoot, i.e.,<br>Lawn and sidewalk | | | |

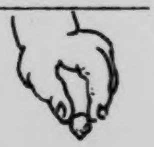
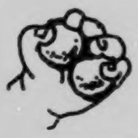
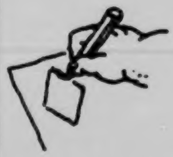
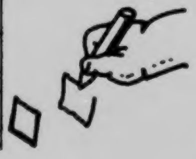
Name of Child ____________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Carpet and linoleum | | | |
| | Terrain clues<br>Is able to see:<br>Traffic lights<br>During the day | | | |
| | At night | | | |
| | Lines on pavement for crosswalks | | | |
| | Steps | | | |
| | Curb | | | |
| | Visual landmarks | | | |
| | House numbers from sidewalk | | | |
| | Empty seat on bus | | | |
| | Fine Motor Development | | | |
| 1 month | Thumb has characteristic curled in position | | | |
| | Finger movements are not bilateral and simultaneous | | | |
| 3 mos. | Disappearance of grasp reflex, no longer are hands tightly closed | | | |
| | Holds rattle voluntarily when it is placed in his hand | | | |
| 4 mos. | Thumb doesn't participate when grasping a cube | | | |
| | Hands come together at midline as he plays | | | |
| | Plays with rattle placed in hand for prolonged period | | | |
| 5 mos. | Approach to objects is two-handed | | | |
| | Grasp is limited to large objects | | | |
| | Reaches | | | |
| 6 mos. | Uses hands to reach, grasp, crumple, bang, and splash | | | |
| | Makes scooping motion with hand in grasping pellet | | | |
| | Thumb opposes in grasping cube | | | |
| 7 mos. | Grasps, fingers and transfers objects from one hand to the other | | | |





Name of Child ____________________

| Age Appropriate | | Assessment Dates | | | |
|---|---|---|---|---|---|
| 9 mos. | Grasps objects precisely between thumb and forefinger | | | |  |
| 10 mos. | Begins to release object, lets object go deliberately instead of accidentally | | | | |
| 15 mos. | Helps turn book pages | | | | |
| | Likes to put articles into a receptacle | | | | |
| 18 mos. | Holds two objects in one hand | | | |  |
| 2 yrs. | Palmar grip giving way to extension of radial fingers toward point of writing instrument | | | | |
| | Turns door knob, unscrews lids | | | | |
| 3 yrs. | Aligns fingers in anticipation of plucking object from table without touching table top | | | | |
| 4 yrs. | Holds hand above or to one side so as not to obstruct view of what he builds | | | | |
| | Independent use of both hands in building | | | | |
| | Improved steadiness of hand, timing and release of objects | | | | |
| 5 yrs. | Prehends in adult manner with two ulnar fingers flexed into palm | | | | |
| | Prehends and places object in one continuous movement | | | | |
| 18 mos. | Drawing<br>Scribbles spontaneously | | | | |
| | Imitates vertical | | | | |
| 24 mos. | Imitates horizontal | | | | |
| | V stroke | | | | |
| | Copies circle | | | |  |
| 4 yrs. | Traces diamond | | | | |
| | Copies cross | | | | |
| 4 1/2 yrs. | Copies square | | | | |
| 5 yrs. | Copies triangle | | | |  |
| | Copies diamond | | | | |

Name of Child ______________________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Copies rectangle | | | |
| 15 mos. | Cube Building and Puzzles<br>2 Cube tower | | | |
| 18 mos | 3 Cube tower | | | |
| | Assembles round shape puzzle | | | |
| 21 mos. | 5 Cube tower | | | |
| 3 yrs. | Assembles puzzles:<br>Square shape | | | |
| | Triangle shape | | | |
| | Rotates pieces | | | |
| | LANGUAGE DEVELOPMENT | | | |
| 1 month | Change in pitch - sign of bodily discomfort | | | |
| 2 mos. | Babbling begins, coos, gurgles | | | |
| | Reflex activities produce sounds | | | |
| | Lalling - repetition of sounds that the child hears for physical pleasure and auditory stimulation | | | |
| 3 mos. | Cry changes with body state | | | |
| | Differentiated crying - mother can tell pain cry repetitions | | | |
| 5 mos. | Vocal play | | | |
| 6 mos. | Directs sounds and gestures to objects | | | |
| | Intonational pattern with jargon | | | |
| 7 mos. | Vocalizes emotional state | | | |
| 8-12 mos. | Meaningful attempt at conversation | | | |
| | First word | | | |
| | Understands phrases and wholes | | | |
| | Responds by action to command | | | |
| | Echolalia | | | |

Name of Child ______________________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | One word sentences (5-6 word vocabulary) | | | |
| 18 mos. | Jargon directed at people | | | |
| | 1.5 word sentence, 15-20 words | | | |
| 18-24 mos. | Understands most linguistic units not yet separated into word units | | | |
| | Pulls to communicate | | | |
| | Imitates animal environmental sounds | | | |
| | Uses one word for many unrelated things - extension of meaning | | | |
| | Uses 100-200 words, recognizes 120-275 | | | |
| 24-30 mos. | Verbalizes simple experiences and emotions | | | |
| | Speed with pointing | | | |
| | Speech has become a tool as well as warning and safety value 1.8 sentence | | | |
| 30-36 mos. | Comprehends time words | | | |
| | Uses compound and complex sentence structure and plurals | | | |
| | Questions begin | | | |
| | 3.1 word sentences, 3-500 word vocabulary | | | |
| | Responds by action to commands - in, under, up, down, run, walk | | | |
| 3 yrs. | Says full name | | | |
| | Final consonants appear, sound begins to include blends; speech blends 90-100% intelligible | | | |
| | Uses two-word phrases, 600-1,000 words | | | |
| | Ask questions about persons, things, processes | | | |
| | Uses pronouns: I, you, me some adjectives, adverbs, prepositions | | | |
| 3-6 yrs. | Repetitions are frequent | | | |
| | Relates experiences with understandind of sequence | | | |
| | Asks why but not for knowledge | | | |

Name of Child ____________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| 4 years | Normally fluent | | | |
| | Advancing sentence structure, uses articles, 4-6 word sentences | | | |
| | Alludes to objects, persons, events outside immediate environment | | | |
| 4-6 yrs. | Reverses order of sound | | | |
| | Spontaneous grammar correction | | | |
| 5 years | Relates fanciful tales and present and past events | | | |
| | Language becomes symbolic | | | |
| | Uses all basic sentence structures | | | |
| | 5-6 word sentence length, 1,500-2,100 word vocabulary, understands 2,500-2,800 words | | | |
| | Counts to 10, knows age, name, primary colors | | | |
| | SENSORY-PERCEPTUAL DEVELOPMENT | | | |
| 1 month | Follows horizontal movement of light or bright object to midline in an arc no greater than 90° | | | |
| | Responds to loud noises by crying or startling (newborn) | | | |
| | Quits and reduces activity because of approaching sounds | | | |
| 2 mos. | Eyes fixate, converge and focus | | | |
| | Long waves (red, orange, yellow) are perceived first | | | |
| | Follows vertical movement | | | |
| | Accepts loud noises as part of environment - doesn't react violently | | | |
| 4 mos. | Looks intently at objects in hand or in front of him | | | |
| | Responds massively (head, shoulders, and arms) to an object dangling in front of eyes | | | |
| | Lateral head and eye movement in search of sound (beginning of localizing response) | | | |
| 6 mos. | Fixates where object disappears | | | |

Name of Child ______________________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Localizes sound by moving head and eyes laterally and upward | | | |
| 7 mos. | Looks for fallen object | | | |
| | Finds partially hidden object | | | |
| | Localizes sound by moving head and eyes in sweeping arc to source | | | |
| | One hand approach | | | |
| 8 mos. | Responds to "no" and name | | | |
| 9 mos. | Can pick up string or object the size of a currant between finger and thumb | | | |
| 10 mos. | Looks around corner for objects | | | |
| | Imitates gestures (waving bye-bye) and facial expressions | | | |
| 1 yr. | Perceives roundness, puts finger or rod in round hole | | | |
| | Places objects in container | | | |
| | Finger grasp of small object | | | |
| | Palmar hold of crayon | | | |
| 18 mos. | Shows interest in pictures and can identify objects in pictures | | | |
| | Responds to two simple commands | | | |
| | Can point to own body parts (2-3) | | | |
| | Imitates mother's common chores | | | |
| 2 yrs. | Increase visual memory span-looks for missing toys, recalls events of previous day | | | |
| | Can select object names from group of objects or pictures | | | |
| | Matches mounted colors (red, yellow, green, blue) with 45 per cent right | | | |
| | Listens to stories | | | |
| | Repeats 3-4 syllable sentences | | | |
| | Repeats 2 digits in one of three trials | | | |
| 3 yrs. | Puts two halves of pictures together even when rotated 180° | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Builds tower of 9-10 blocks with increased command of vertical movements | | | |
| | Imitates building of bridge, i.e., horizontal and vertical | | | |
| | Matches forms by inserting circle, square and triangle in cut-out forms even with reversal of position | | | |
| | Repeat three digits, out of rote sequence, one out of three trials | | | |
| | Can make a choice of two alternatives | | | |
| 4 yrs. | Can supply three missing parts to a drawing of an incomplete man, makes comparative size discriminations consecutively | | | |
| | Discriminates length of lines regardless of orientation | | | |
| | Can match eight to ten forms | | | |
| | Traces diamond shape between two parallel lines | | | |
| | Copies circle more accurately, with ends joining | | | |
| | Copies cross | | | |
| | Uses plurals | | | |
| | Counts, pointing to three objects (concepts to 2) | | | |
| | Repeats 12-13 syllable sentences | | | |
| | Repeats three digits, three out of three trials | | | |
| | Discriminates noisemakers | | | |
| | Matches sound blocks by loudness | | | |
| | Opposite analogies | | | |
| 5 yrs. | Perceives details visually and asks about them | | | |
| | Puts diagonals together: two triangles to make a rectangle | | | |
| | Matches ten forms | | | |
| | Can insert sequence of nesting cups | | | |

Name of Child ______________________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Names four colors | | | |
| | Developing right-left concept | | | |
| | Follows and repeats sequence of a story | | | |
| | Claps to rhythm of song or drum | | | |
| | Perceived detail auditorally, selects a word from a sentence and asks about it | | | |
| | Repeats four digits, two out of three trials | | | |
| | Can grade sound blocks by loudness | | | |
| 6 yrs. | Repeats five digits | | | |
| | SELF AND SOCIAL AWARENESS | | | |
| | Emotional Development* | | | |
| 4 weeks | Reacts positively to comforts and satisfactions | | | |
| | Reacts negatively to pain and denial | | | |
| 12 weeks | Cries more in daytime | | | |
| | in the evening | | | |
| 16 weeks | Can wait for his feeding | | | |
| | Shoulders tense, breathing quickens, smiles when picked up | | | |
| | Coos, chuckles, laughs aloud | | | |
| 28 weeks | Can amuse himself for longer periods | | | |
| | Friendly to family and strangers | | | |
| | Alternates between self-directed and social activity | | | |
| | Good equilibrium | | | |
| 32 weeks | Cries and withdraws fron strangers | | | |
| 36-40 wks. | Socially responsive, i.e. pat-a-cake | | | |
| | Warm smiles to friends and strangers | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Serene, confident, enjoys an audience | | | |
| 1 year | Aggressive interaction with environment begins | | | |
| | Willfully disobedient | | | |
| | Expressions of fear, anger, affection, anxiety, and sympathy - congruent with situations evoking them | | | |
| | Distinguishes between you and me | | | |
| 15 mos. | "No-no" has little effect on him | | | |
| | Can indicate refusal by bodily protest | | | |
| | Moods are shifting and quick temper short-lived | | | |
| | Easily diverted and entertained | | | |
| 18 mos. | Acts counter to adult suggestions | | | |
| | "No" is used constantly | | | |
| | "Now" is only important time | | | |
| | Cannot tolerate frustration | | | |
| | Interpersonal relations dominated by "taking" | | | |
| | Treats other children as objects | | | |
| | No concept of sharing | | | |
| | Rigid and inflexible | | | |
| | Things must be just right and in proper place | | | |
| | Very domineering and demanding | | | |
| 2 yrs. | More organized behavior | | | |
| | Can occasionally put other's wishes before his own | | | |
| | Will not share with other child but will find toy substitute for him | | | |
| | Separates readily from mother when handled properly | | | |
| | Curious and busy | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | | | | |
| | Uses I, me, you | | | |
| | Emotional arousal sudden, intense, brief - temper tantrums | | | |
| 2 1/2 yrs. | Must give orders and make decisions | | | |
| | Appears compelled to resist | | | |
| | Demonstrates opposite extremes in behaviors | | | |
| 3 yrs. | "Yes" freely used | | | |
| | Likes to "give and take", and share objects and experiences | | | |
| | Cooperative and easy-going | | | |
| | Good feeling with himself and others | | | |
| | People are important to him | | | |
| | Rituals not required for security | | | |
| | Shows sympathy in response to bandages, crying, accidents | | | |
| | Develops jealousy toward siblings | | | |
| | May rage at difficulties he experiences in dressing | | | |
| | Fear of dark, bugs, and strange situations like nursery school | | | |
| | Sacrifice immediate satisfaction on promise of later privilege | | | |
| | Begins to use words to express feelings | | | |
| 4 yrs. | Genital fixation and exploration - likes to go to the bathroom with others to satisfy his curiousity | | | |
| | Aware of attitudes of peers | | | |
| | Shares possessions | | | |
| | Fabricates, alibies, rationalizes | | | |
| | Separates readily | | | |
| 5 yrs. | Sensitive to social situations, aware of status, feels shame if he doesn't live up to his own expectations of others | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | | |
|---|---|---|---|---|---|
| | Accomplished in wielding tools and and meaningful toys | | | | |
| | Loyal to playmates and devoted to teacher | | | | |
| | Proud of school accomplishments, satisfied with artistic production | | | | |
| | Sparked into increased activity by rivalry | | | | |
| | Body Awareness* | | | | |
| 18 mos. | Explores own body with hands, mouth, or eyes | | | | |
| | Identifies areas of tactile stimulation on own body | | | | |
| 2 yrs. | Identifies gross body parts when asked to "Show me your _____"; i.e., leg, arm, head, tummy | | | | |
| | Identifies gross body parts on a doll | | | | |
| | Identifies fine body parts on self, i.e., hair, eyes, nose | | | | |
| | Identifies fine body parts on a doll | | | | |
| 3 yrs. | Demonstrates the ability to:<br>crawl under low table | | | | |
| | climb over the table | | | | |
| | climb the (indoor) jungle gym ladder | | | | |
| | crawl through the tunnel | | | | |
| | go down the low slide with hands free | | | | |
| 4 yrs. | Identifies own body planes: front, back, side | | | | |
| | Identifies body planes of another person: front, back, side | | | | |
| | Identifies elbow, ankle | | | | |
| | Identifies wrist, shoulder | | | | |
| | Identifies knee | | | | |
| | Demonstrates ability to place objects in relation to planes of own body:<br>In front of | | | | |

Name of Child ______________________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | In back of | | | |
| | On the side of | | | |
| | Daily Living Skills<br>Sleeping | | | |
| 4 weeks | Sleeps more definite periods and wakes decisively | | | |
| 6-10 wks. | Begins to sleep all night, i.e., 10 p.m. - 6 a.m. | | | |
| 9-15 mos. | Naps reduced to one a day (afternoon) | | | |
| 16-24 mos. | Displays a sense of security and confidence in going to bed | | | |
| 24-36 mos. | Rests and plays quietly in bed when nap is not needed | | | |
| | Eating | | | |
| Birth-3 months | Sucks nipple | | | |
| | Swallows liquid without strangling or gagging | | | |
| | Moves mouth at touch or sound of bottle | | | |
| | Permits adult's hands to be placed over his on bottle while drinking | | | |
| | Swallows baby food | | | |
| | Holds bottle | | | |
| | Picks up bottle and drinks independently | | | |
| 6 mos. | Brings food to mouth when it is put in his hand | | | |
| | Feeds self cracker | | | |
| | Begins to chew food | | | |
| 10 mos. | Eats new food when combined with familiar food | | | |
| | Reaches for spoon while being fed | | | |
| | Drinks from cup held by an adult | | | |
| 15 mos. | Holds cup in grasp but may tip it frequently | | | |

Name of Child ____________________

| Age Appropriate | | Assessment Dates | | | |
|---|---|---|---|---|---|
| | Grasps spoon and puts it into dish | | | | |
| 18 mos. | Fills spoon and feeds self awkwardly, (spilling much) | | | | |
| | Lifts cup to mouth and drinks well | | | | |
| | Hands empty cup to another person | | | | |
| 21 mos. | Handles cup easily: lifting, drinking, putting down | | | | |
| 2 yrs. | Hinders turning of spoon; needs help in eating with it | | | | |
| | Holds small glass in one hand as he drinks | | | | |
| 2 1/2 yrs. | Little spilling in self-feeding | | | | |
| 3 yrs. | Pours well from a pitcher | | | | |
| | Goes to table at mealtime and locates correct seat | | | | |
| 3 1/2 yrs. | Uses fork to pierce food | | | | |
| | Uses fork to scoop food | | | | |
| 4 yrs. | Likes to serve self at table; uses fork, knife | | | | |
| | Helps to clear table | | | | |
| | Dressing | | | | |
| 15 mos. | Cooperates in dressing by extending arm or leg | | | | |
| | Pulls off loose articles, i.e., cap, mittens, socks | | | | |
| | Pushes shoes off at heel | | | | |
| 18 mos. | Undresses independently | | | | |
| | Unzips zippers | | | | |
| | Tries to put on shoes | | | | |
| 2 yrs. | Pulls on simple garments, finds large armholes and pushes arms into them | | | | |
| 3 yrs. | Puts on shoes, underpants and slacks | | | | |
| | Pushes front and side buttons through buttonholes | | | | |

Name of Child ______________________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | Washes and dries hands and face | | | |
| 4 yrs. | Brushes teeth | | | |
| | Dresses and undresses with little supervision | | | |
| | Distinguishes front and back of clothing, puts on correctly | | | |
| | Laces shoes | | | |
| 5 yrs. | Combs and brushes hair | | | |
| | Toilet Training | | | |
| 6 mos. | Shows discomfort when wet or soiled | | | |
| 12 mos. | Will sit on potty chair | | | |
| 15 mos. | Does not indicate toilet needs; does indicate wet pants | | | |
| 18 mos. | Indicates toilet needs in time | | | |
| | Both bowel and bladder regulated in day time | | | |
| 2 yrs. | Locates bathroom independently | | | |
| | Dry at night if taken up at least once | | | |
| 2 1/2 yrs. | Cleans self | | | |
| | No accidents during day; usually dry at night | | | |
| 4 yrs. | Uses toilet unassisted | | | |
| | Other (general) | | | |
| 21 mos. | Asks for food, toilet, drink by gesture or word | | | |
| 2 1/2 yrs. | Begins to put things away | | | |
| 3 yrs. | Clears and cleans table | | | |
| 3 1/2 yrs. | Puts away toys with supervision | | | |
| 4 yrs. | Goes to bathroom independently and manages clothes himself | | | |
| | Goes on errands outside home | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | | |
|---|---|---|---|---|---|
| 5 yrs. | Can safely cross streets, if not too busy, and can help another child to cross | | | | |
| 6 yrs. | Ties shoe laces | | | | |
| | **Social Development** | | | | |
| 1 month | Eye contact | | | | |
| 12 weeks | Knows, recognizes, and enjoys play with mother and father | | | | |
| 16 weeks | Spontaneous social smile - laughs aloud | | | | |
| 20 weeks | Cries when someone leaves him | | | | |
| 24 weeks | Smiles and vocalizes at mirror image | | | | |
| | Discriminates strangers | | | | |
| 28 weeks | Gravitates towards familiar persons for companionship | | | | |
| 32 weeks | Withdraws from strangers | | | | |
| 40 weeks | Waves bye-bye and pat-a-cakes | | | | |
| 44 weeks | Drops objects deliberately so that they will be retrieved | | | | |
| 1 year | Gives object to another on request | | | | |
| | Anticipates body movements when nursery rhyme is being said | | | | |
| 13 mos. | Hugs and shows affection toward doll or teddy bear | | | | |
| | Plays near other children, not directly with them | | | | |
| 21 mos. | Mimics household chores | | | | |
| 2 yrs. | Can call himself by his own name. Knows his common body parts | | | | |
| | Calls all men and women "Mommies" and "Daddies", children "Baby" | | | | |
| | Cannot play with more than one child without direct supervision | | | | |
| 2 1/2 yrs. | Calls women "Lady" and men "Man" | | | | |
| | Knows he is a boy like father and that he is different from girls and mothers (vice versa if a girl) | | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| | | | | |
| | Says, "I need," "I don't like" | | | |
| 3 yrs. | Can tell difference between boys and girls but makes no distinction in his play, talkative | | | |
| 3 1/2 yrs. | Interest in marriage and marrying | | | |
| | Imaginary playmates | | | |
| | Child plays the role of animals | | | |
| | Temporary attachments to one playmate | | | |
| 4 yrs. | Plays well with one child or in supervised group | | | |
| | Tendency in play groups for a division along sex lines | | | |
| | Beginning of strong feeling for family and home | | | |
| 4 1/2 yrs. | Capable of playing in small groups without supervision | | | |
| 5 yrs. | Shows ability to delay gratification | | | |
| 6 yrs. | Beginning of value judgments about his own behavior, setting up standards for himself | | | |
| | COGNITIVE/CREATIVITY<br>Conceptual Development | | | |
| 4-8 mos. | Intention and means/end are beginning to develop: child shakes rattle to hear | | | |
| | Beginnings of object permanence: He looks for a short time for object removed from field of vision | | | |
| | Puts "motor meaning" to objects. Shakes head at sight of rattle | | | |
| 8-12 mos. | Beginning of symbolic meaning - actions to represent object | | | |
| | Overpermanence of objects - child watches you hide an object in one hand and finds it. Watches while hidden in other hand but looks in first hand | | | |
| | First indications of causality | | | |
| | Applies familiar scheme to new situations | | | |

Name of Child ______________________

| Age Appropriate | | Assessment Dates | | |
|---|---|---|---|---|
| 12-18 mos. | Negation of overpermanence | | | |
| | Development of space perception | | | |
| | Modifies familiar schema to fit new perceptions | | | |
| | Trial and error processes begin | | | |
| | Causality - child uses string to pull object to him | | | |
| 18-24 mos. | Formulates negative judgment - spoon is not a fork | | | |
| | Says no on high plane of logic | | | |
| | Object permanence - child looks behind couch for ball that rolled under front | | | |
| 24-30 mos. | Understands concepts in, under. Can answer, "What do you do with____?" | | | |
| 3 yrs. | Understands concepts in front of, behind, on, same, different | | | |
| | Comparison of lines, can pick out the longest | | | |
| | Verbs - can answer, "Show me sitting" | | | |
| | Adjectives - big, little, hard, soft | | | |
| | Can classify objects on the basis of physical attributes | | | |
| 4 yrs. | Comparison of weights - can find the heaviest | | | |
| | Knows colors | | | |
| | Understands money is for purchasing | | | |
| | Defines objects by their use | | | |
| | Can tell stories without pictures | | | |
| | Can classify on the basis of groups - these are all animals | | | |
| 4 1/2 yrs. | Can classify on the basis of function. Can answer, "Is it hot in winter?" | | | |
| 5 yrs. | Can make aesthetic comparison - Which is pretty? | | | |
| | Can make application many-to-one, but not one-to-many. | | | |
| 5 1/2 yrs. | Can classify by association - rattle goes with baby | | | |

*Not included in field testing

# Pre-academic Behaviors and Skills Checklist
(for children in school programs)

Child's Name: ______________________
School Year: ______________________
Child's age as of September: ________
Birth Date: ______________________
Impairment: ______________________

**Coding**

▱ Concept not introduced
⧄ Objective begun; needs time and help
○ Objective partially attained
⊗ Objective attained

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| I. Knowledge of Self:<br>1. Identifies: | | | | |
| a. First and last name | | | | |
| b. Street address | | | | |
| c. City and state | | | | |
| d. Age | | | | |
| e. Birthday | | | | |
| f. Members of own family | | | | |
| g. Name of school | | | | |
| h. Teacher's name | | | | |
| II. Social and Emotional Growth | | | | |
| 1. Cooperates with other children | | | | |
| 2. Shows confidence in beginning new activity | | | | |
| 3. Exhibits independence in making choices | | | | |
| 4. Makes transitions between active and quiet situations | | | | |
| 5. Plays harmoniously with other children without supervision | | | | |
| 6. Listens while others are speaking without interrupting | | | | |

Child's Name ______________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| 7. Say, "Please," "Thank you," and "Excuse me" | | | | |
| 8. Adjusts easily to a new social situation | | | | |
| 9. Shows ability to delay gratification | | | | |
| 10. Is sensitive to social situations; feels shame if he doesn't live up to his own expectations | | | | |
| 11. Makes mistakes without becoming upset | | | | |
| 12. Appears to have positive attitude toward self | | | | |
| 13. Seeks and accepts help when needed | | | | |
| 14. Recalls learned concepts | | | | |
| 15. Applies learned concepts | | | | |
| 16. Responds to directions quickly: | | | | |
| a. One direction (i.e., "Close the door.") | | | | |
| b. Two directions (i.e., "Take your coat off and hang it up.") | | | | |
| c. Three directions (i.e., "Color the shape, cut it out, and paste it.") | | | | |
| 17. Completes what he begins | | | | |
| 18. Puts on and takes off clothing with little or no aid | | | | |
| 19. Goes to bathroom by himself and manages clothes without difficulty | | | | |
| 20. Puts away toys by himself | | | | |
| 21. Cares for personal and school property | | | | |
| 22. Shares possessions | | | | |
| 23. Practices health habits | | | | |
| a. covers mouth when coughs | | | | |
| b. covers nose when sneezes | | | | |
| c. blows nose | | | | |
| d. washes and dries hands after toileting | | | | |
| III. Language/Reading Readiness | | | | |
| 1. Shows interest in books | | | | |

Child's Name ______________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| 2. Listens to stories and poems | | | | |
| 3. Interprets pictures and moods | | | | |
| 4. Answers questions concerning a story he has heard | | | | |
| 5. Supplies beginning to a story | | | | |
| 6. Predicts outcome of a story | | | | |
| 7. Tells a simple story | | | | |
| 8. Tells a complex story in sequence | | | | |
| 9. Relates personal experiences with understanding of sequence | | | | |
| 10. Names common-place objects related to self and environment | | | | |
| 11. Contributes to group discussions | | | | |
| 12. Adds new words to vocabulary | | | | |
| 13. Uses complete sentences | | | | |
| 14. Speaks plainly (clearly) | | | | |
| 15. Associates sound and shape of letters of alphabet | | | | |
| 16. Writes letters of alphabet:<br>a. upper case | | | | |
| b. lower case | | | | |
| 17. Repeats alphabet in sequence | | | | |
| 18. Recognizes some words in print | | | | |
| 19. Recognizes spoken words which begin with same sound | | | | |
| 20. Recognizes spoken words which rhyme (i.e., end with same sound) | | | | |
| 21. Differentiates between fact and fantasy | | | | |
| 22. Classifies and categorizes data: | | | | |
| a. sees similarities | | | | |
| b. sees differences | | | | |
| c. recognizes opposites | | | | |
| 23. Expresses plurals, i.e., (one cat-two cats, one foot-two feet) | | | | |

Child's Name ______________________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| 24. Recognizes spatial relationships (i.e. under, over, beside) | | | | |
| IV. Mathematics | | | | |
| 1. Matches one to one | | | | |
| 2. Counts objects in order | | | | |
| 3. Understands concept of sets | | | | |
| 4. Identifies the number of objects in a given set | | | | |
| 5. Identifies and names geometric shapes | | | | |
| 6. Arranges objects according to size | | | | |
| 7. Recognizes numerals | | | | |
| 8. Names numerals | | | | |
| 9. Is able to write numerals | | | | |
| 10. Knows and uses mathematics vocabulary (i.e., set, which one, how many, equal, zero, etc.) | | | | |
| 11. Understands that money is for purchasing | | | | |
| 12. Recognizes correlation between ordinal and cardinal numbers | | | | |
| 13. Is able to conserve idea of quantity | | | | |
| 14. Understands concept of month | | | | |
| 15. Understands concept of week | | | | |
| 16. Names days of week | | | | |
| V. Science | | | | |
| 1. Uses simple science equipment (i.e. magnet, thermometer, magnifying glass, prism) | | | | |
| 2. Investigates and experiments in environment | | | | |
| 3. Shows curiosity by asking questions | | | | |
| 4. Uses science vocabulary | | | | |
| 5. Uses problem-solving approach in science activities | | | | |
| 6. Discriminates by weight--can find heaviest, lightest, etc. | | | | |

Child's Name ______________________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| 7. Identifies materials by smelling | | | | |
| 8. Classifies objects on the basis of physical attributes (i.e., soft, smooth, small, etc.) | | | | |
| 9. Classifies objects on the basis of groups (i.e., these are all animals, etc.) | | | | |
| VI. Social Studies | | | | |
| 1. Shares information relating to topics of study | | | | |
| 2. Identifies seasons and holidays of year | | | | |
| 3. Identifies roles of family members, people in community and school | | | | |
| 4. Knows time: | | | | |
| a. Today | | | | |
| b. Tomorrow | | | | |
| c. Yesterday | | | | |
| d. Afternoon | | | | |
| e. Morning | | | | |
| 5. Practices safe habits in daily living | | | | |
| VII. Art<br>1. Uses correctly | | | | |
| a. scissors | | | | |
| b. paint brush | | | | |
| c. crayons | | | | |
| d. paste | | | | |
| 2. Uses clay | | | | |
| a. pounds | | | | |
| b. pulls apart | | | | |
| c. cuts | | | | |
| d. rolls | | | | |

Child's Name ______________________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| 3. Names colors | | | | |
| a. Red | | | | |
| b. Yellow | | | | |
| c. Blue | | | | |
| d. Green | | | | |
| e. Orange | | | | |
| f. Brown | | | | |
| g. Black | | | | |
| h. Purple | | | | |
| i. Pink | | | | |
| j. White | | | | |
| k. Gray | | | | |
| 4. Participates in art activities | | | | |
| 5. Shows growing power of artistic expression | | | | |
| VIII. Music | | | | |
| 1. Participates in singing | | | | |
| 2. Reproduces melodies | | | | |
| 3. Moves to music (rhythms) in an interpretive manner | | | | |
| 4. Uses instruments appropriately | | | | |
| 5. Reproduces rhythmic patterns | | | | |
| 6. Distinguishes between | | | | |
| a. fast and slow | | | | |
| b. high and low | | | | |
| c. loud and soft | | | | |
| IX. Gross Motor (Large Muscle) | | | | |
| 1. Crawls | | | | |

Child's Name ______________________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| 2. Walks straight line for 10 feet | | | | |
| 3. Walks on tip toes | | | | |
| 4. Runs | | | | |
| 5. Jumps | | | | |
| a. forward with feet together | | | | |
| b. backward with feet together | | | | |
| 6. Hops | | | | |
| a. both feet | | | | |
| b. left only | | | | |
| c. right only | | | | |
| 7. Climbs stairs with alternate feet | | | | |
| a. up | | | | |
| b. down | | | | |
| 8. Climbs equipment with assurance | | | | |
| 9. Gallops | | | | |
| 10. Skips with both feet | | | | |
| 11. Performs jumping jacks | | | | |
| 12. Handles ball | | | | |
| a. rolls | | | | |
| b. throws | | | | |
| c. catches | | | | |
| d. bounces | | | | |
| e. kicks | | | | |
| 13. Jumps rope | | | | |
| a. teacher turned | | | | |
| b. self turned | | | | |

Child's Name ______________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| 14. Walks balance beam | | | | |
| a. forward aided | | | | |
| b. backward aided | | | | |
| c. forward unaided | | | | |
| d. backward unaided | | | | |
| 15. Carries things without dropping them (or spilling them) | | | | |
| 16. Displays good coordination | | | | |
| 17. Rides a tricycle | | | | |
| 18. Marches in time to music | | | | |
| 19. Climbs on and off bus unaided | | | | |
| X. Fine Motor (Small Muscle) | | | | |
| 1. Cuts with scissors | | | | |
| a. free cutting | | | | |
| b. following a line | | | | |
| 2. Colors | | | | |
| 3. Pastes | | | | |
| 4. Strings beads | | | | |
| 5. Manipulates pegs | | | | |
| 6. Builds with blocks | | | | |
| 7. Works Puzzles | | | | |
| 8. Buttons | | | | |
| 9. Zips | | | | |
| 10. Buckles | | | | |
| 11. Laces and ties shoes | | | | |
| 12. Establishes hand preference | | | | |
| 13. Works in left to right progression | | | | |

Child's Name ______________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| 14. Picks up small objects | | | | |
| 15. Holds pencil/crayon correctly | | | | |
| 16. Draws circles | | | | |
| 17. Draws down, up, across | | | | |
| 18. Draws sticks | | | | |
| 19. Traces shapes | | | | |
| 20. Turns door knobs | | | | |
| 21. Unscrews lids | | | | |
| 22. Recognizes materials by touch | | | | |
| 23. Recognizes shapes by touch | | | | |
| XI. Visual Skills | | | | |
| 1. Recognizes and identifies colors | | | | |
| 2. Recognizes and identifies shapes | | | | |
| 3. Identifies "sameness" and differences | | | | |
| a. color | | | | |
| b. size | | | | |
| c. shape | | | | |
| 4. Displays visual memory | | | | |
| a. what is missing | | | | |
| b. sequence of shapes | | | | |
| c. sequence of objects | | | | |
| d. sequence of pictures | | | | |
| 5. Displays visual directionality | | | | |
| a. left to right | | | | |
| b. top to bottom | | | | |
| c. clockwise | | | | |

Child's Name ______________________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| d. counterclockwise | | | | |
| 6. Establishes left to right progression | | | | |
| a. sequencing | | | | |
| b. counting | | | | |
| 7. Copies patterns and shapes | | | | |
| a. block patterns | | | | |
| b. bead patterns | | | | |
| c. paper and pencil patterns | | | | |
| 8. Shows appreciation of pictures by comments toward the details in the picture | | | | |
| 9. Demonstrates ability for visual search by locating an object visually | | | | |
| 10. Demonstrates ability to perceive visual detail by locating internal details of an object | | | | |
| 11. Demonstrates ability to locate an object far from him by distant vision | | | | |
| 12. Discriminates similarities and differences in individual lower case letters | | | | |
| 13. Discriminates similarities and differences in upper case letters | | | | |
| 14. Identifies each of the letters, upper and lower case | | | | |
| 15. Matches words beginning with upper case letters with the same words beginning with lower case letters | | | | |
| 16. Demonstrates ability to see likenesses and differences among words | | | | |
| 17. Demonstrates ability to recognize words | | | | |
| 18. Distinguishes between figure and background | | | | |
| XII. Auditory Skills | | | | |
| 1. Identifies sounds | | | | |
| a. environmental | | | | |
| b. animals | | | | |
| c. instruments | | | | |
| d. loud and soft | | | | |

Child's Name ______________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| e. high and low | | | | |
| 2. Discriminates likenesses and differences | | | | |
| a. Speech sounds | | | | |
| b. Instrument sounds | | | | |
| 3. Locates direction (origin) of sound | | | | |
| 4. Displays auditory memory - patterns | | | | |
| a. clapping | | | | |
| b. commands | | | | |
| c. sentences | | | | |
| 5. Organizes by sequence | | | | |
| 6. Imitates sounds | | | | |
| 7. Listens to make decisions | | | | |
| XIII. Body Awareness | | | | |
| 1. Names and locates parts of body | | | | |
| 2. Controls parts of body (imitates movements) | | | | |
| 3. Shows awareness of his left and right | | | | |
| 4. Identifies position in relation to objects | | | | |
| a. on | | | | |
| b. in | | | | |
| c. under | | | | |
| d. over | | | | |
| e. beside | | | | |
| f. behind | | | | |
| g. in front of | | | | |
| 5. Correctly positions named parts of his body (i.e., Put your hands behind your body.) | | | | |

# Language Development Inventory

Name of Child ______________________

Inventory Year ______________________

Child's Age ______________________

Note: Owing to the continuum (non-discrete) nature of language learning as well as the mastery of basic daily living skills (particularly in the case of multiply handicapped children), this scale was devised in an effort to more clearly translate behavioral objective achievements

Code

0 = appropriate behavior not observed at all
1 = appropriate behavior observed occasionally in classroom
2 = appropriate behavior observed at least 50% of time in classroom
3 = consistently appropriate behavior observed in classroom
4 = consistently appropriate behavior observed in all situations

| Expected Behaviors | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| Physical Development<br>I. Daily Living Skills | | | | |
| A. Self feed finger foods | | | | |
| B. Manage a diet of regular food | | | | |
| C. Drink liquid from a cup | | | | |
| D. Direct filled utensil to mouth | | | | |
| E. Fill utensil and direct to mouth | | | | |
| F. Remove specific articles of clothing | | | | |
| G. Assist in dressing self | | | | |
| H. Use bathroom facilities appropriately | | | | |
| I. Indicate need for bathroom | | | | |
| J. Point to body parts on request | | | | |
| K. Self-select activities (make decisions) | | | | |
| L. Accept/select toys and appropriate usage | | | | |
| M. Display frustration in proportion to nature of disagreeable/painful event | | | | |
| II. Pre-Mobility | | | | |
| A. Assume standing position with assistance | | | | |

Name of Child ______________________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| | | | | |
| B. Assume standing position without assistance | | | | |
| C. Can walk with assistance | | | | |
| D. Can walk independently | | | | |
| E. Can walk more than 5 feet independently | | | | |
| F. Move through classroom environment with assistance | | | | |
| G. Move independently through classroom environment with voice and other auditory cues | | | | |
| H. Move through classroom environment independently | | | | |
| I. Ascend/descend stairs with assistance | | | | |
| J. Open/shut doors with assistance | | | | |
| K. Remove box tops/open containers | | | | |
| III. Gross Motor Development (i.e., large muscle) | | | | |
| A. Perform large-muscle tasks, i.e., walk, jump, climb (with assistance) | | | | |
| B. Independently perform large-muscle tasks (no equipment necessary) | | | | |
| C. Utilize play equipment designed to facilitate gross motor development (with assistance) | | | | |
| D. Independently utilize play equipment designed to facilitate gross motor development | | | | |
| IV. Fine Motor Development (i.e., fine muscle) | | | | |
| A. Utilize a variety of equipment designed to facilitate fine motor development (with assistance) | | | | |
| B. Independently utilize a variety of equipment designed to facilitate fine motor development | | | | |
| C. Tactually identify personal objects | | | | |
| Perception of Self and Others<br>I. Syntactic Constructs (as arranged/order used) | | | | |
| A. Prepositions ("on," "in," "under," "front," "back") | | | | |
| B. Personal Pronouns ("I," "me," "you," "she," "he," "it," "they") | | | | |
| C. Relative Pronouns ("that," "this," "these," "those," "them," "there," "here") | | | | |

Name of Child ______________________

| | Assessment Dates | | | |
|---|---|---|---|---|
| II. Language Concepts | | | | |
| A. Classifications<br>1. The Family: | | | | |
| a. Members | | | | |
| b. Sexes | | | | |
| c. Relationships | | | | |
| 2. The Home: | | | | |
| a. Structures/rooms | | | | |
| b. Furnishings | | | | |
| c. Purposes | | | | |
| 3. The Human Body - Different anatomic parts: | | | | |
| a. Functions | | | | |
| b. Characteristics (texture, shape, relative size) | | | | |
| 4. Food: | | | | |
| a. Varieties | | | | |
| b. Characteristics (shape, size, color, aroma, texture) | | | | |
| 5. Animals: Domestic/Tame | | | | |
| a. Varieties | | | | |
| b. Characteristics (relative size, texture, color, shape) | | | | |
| 6. Clothing: Kind and usage | | | | |
| (indoor/outdoor, sleep wear, etc.) | | | | |
| B. Verbal number concepts (1-10) | | | | |
| Total Language Process<br>I. Verbalizations re: Environment | | | | |
| A. People | | | | |
| B. Places | | | | |
| C. Objects | | | | |
| II. Verbalizations of Personal Needs and Wants | | | | |

Name of Child ______________________

| | | Assessment Dates | | | |
|---|---|---|---|---|---|
| | | | | | |
| | A. States of being (hungry, thirsty, tired, warm, chilled, happy, sad, angry, etc.) | | | | |
| | B. Described desires | | | | |
| III. | Verbalizations of Sensory-Motor Perceptions<br>A. Experiences: | | | | |
| | 1. Actual | | | | |
| | 2. Fantasy | | | | |
| | B. Activities | | | | |
| IV. | Verbalizing causal relationships | | | | |
| V. | Verbalizing stories (original and retells) | | | | |
| VI. | Verbalizing re: non-immediate environment | | | | |
| VII. | Verbalizing absurdities<br>A. Developing sense of humor | | | | |
| VIII. | Verbalizing links (past with present) | | | | |
| IX. | Verbalizing abstract concepts dealing with classification | | | | |
| X. | Participating in conversation (appropriately alternating speaker-listener roles) | | | | |

# Self Concept Development

## DEFINITION AND DESCRIPTION OF SELF-CONCEPT

Self-concept is at the same time the simplest concept to understand, because it is experienced by all, and the most difficult and complex to define, because it is so individual and unique. Self-concept is a composite of the way a person sees himself alone, in his relationships to others, and in relationship to the world around him. Self-concept is greatly influenced both initially and throughout life by the way a person is perceived and treated by others. It can be felt and observed in the moment of crisis. It involves the coping, adjusting, accepting of disappointments, the striving to achieve and to overcome barriers and burdens, as well as the carrying out of regular duties and responsibilities.

## PROMOTING HEALTHY SELF-CONCEPT IN CHILDREN

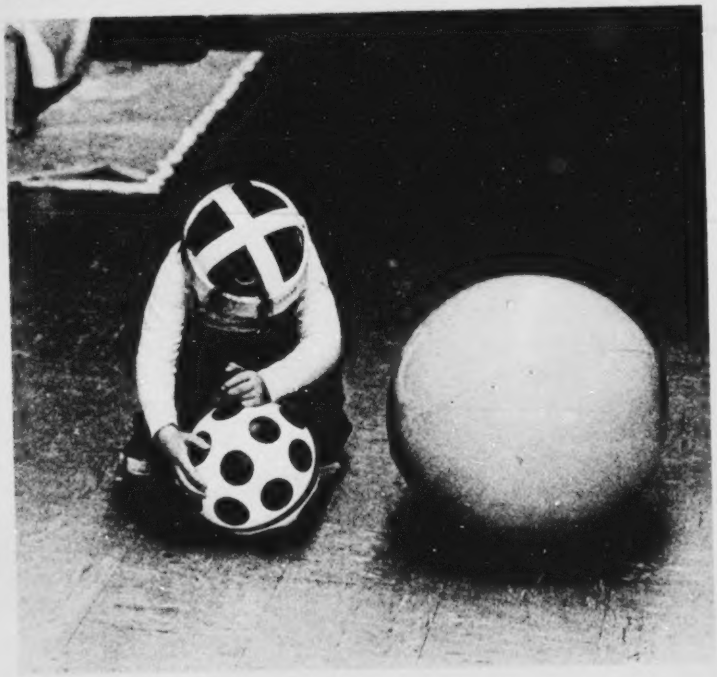
From the moment of birth, healthy self-concept is promoted by feelings of genuine caring, accepting, and approving, transmitted through significant others. Long before verbal skills are ever developed, a child knows how he is perceived, loved, accepted, and approved by others, he absorbs a sense of positiveness about his life, and establishes a structure or foundation on which to build a secure "self" system. As the young child ventures, dares, and tries new tasks, he gains a larger degree of confidence and self-esteem with their mastery. The patient, trusting, and believing parent, teacher, or significant other enhances the self-concept of the child through support and encouragement and authentic joy in the successes of the young child. With time, the child develops his own feelings about his accomplishments, saying silently in effect, "I like myself. I can do and I can be, and it feels nice." At this point, the "self feelings" take on equal significance with the "feelings of others," and the child has reached the point of new-found independence. Henceforth, he will have important input into the person he is and is to be.

## INTERFERING WITH HEALTHY SELF-CONCEPT IN CHILDREN

Interferences in healthy self-concept development occur when the caring, accepting, and approving of an infant or young child are inconsistent or insincere. The child senses his "unacceptability," his being loved "with reservations," his "not being what others would like him to be." Even as the significant others in his life are communicating, "You are less than we want," so the very young child begins to feel and know he is less than he should be in the eyes of the world around him. His foundation for self-esteem is shaky, insecure, and unstable. When new tasks are attempted, he faces them with fear, uncertainty, and less-than-positive efforts. As he frequently fails, confidence lessens. Without the consistently patient, trusting, believing parent, teacher, and significant others, his self-concept diminishes and he becomes more and more negative in his attitudes toward himself. He is more dependent on the outside world; his sense of accomplishment and success, and accompanying independence, is thwarted or irregular. He never arrives--or only partially arrives--at the point when he feels, "I am a worthy person, I like myself." In essence, his self-concept is poor, and this will carry over into all aspects of his life experience.

THE ASSESSMENT OF SELF-CONCEPT IN CHILDREN

Because self-concept is so individual, its measurement is very difficult. A number of attempts have been made at standardizing the evaluation of self-concept in children, but the best appraisal remains the individual observation of the child's behavior and the child's self report of how he sees himself and how he feels about himself.



I met a little Elfman once, down where the lilies blow.
I asked him why he was so small and why he did not grow.
He slightly frowned, and with his eyes he looked me through and through.
"I'm quite as big for me," he said, "as you are big for you."

—*John Kendrick Bangs*

# intervention strategies

## Infant Reflexive Movement

The earliest infant movements are reflexes which are defined as involuntary actions prompted by various external stimuli. Soon after birth the physician will test the integrity of the nervous system by attempting to elicit certain expected reflexes. Neurological dysfunction is suspected if the reflex is absent, if it is too weak or too strong, and if it produces an uneven response on both sides of the body. Some kind of neurological impairment may also be indicated if a "normal" reflex continues to be apparent for too long a time or fails to appear at all. Table 16 shows some of these inherent responses in the newborn and approximate ages at which they appear and disappear.

### Table 16

### Infant Reflexive Behavior*

Percentage of Children Demonstrating Behavior

| Disappear | | | | Appear | | | | |
|---|---|---|---|---|---|---|---|---|
| Moro | TNR | Crossed Add | Age (months) | NRR | Support | Landing | Parachute | Hand Grasp |
| 93 | 67 | | 1 | 13 | 50 | 0 | 0 | 0 |
| 89 | 90 | | 2 | 23 | 43 | 0 | 0 | 0 |
| 70 | 50 | 41 | 3 | 25 | 52 | 0 | 0 | 0 |
| 59 | 34 | 41 | 4 | 26 | 40 | 0 | 0 | 0 |
| 22 | 31 | 41 | 5 | 38 | 61 | 29 | 0 | 0 |
| 0 | 11 | 21 | 6 | 40 | 66 | 42 | 3 | 0 |
| 0 | 0 | 12 | 7 | 43 | 74 | 42 | 29 | 16 |
| 0 | 0 | 15 | 8 | 54 | 81 | 44 | 40 | 53 |
| 0 | 0 | 6 | 9 | 67 | 96 | 97 | 76 | 63 |
| 0 | 0 | 3 | 10 | 100 | 100 | 100 | 79 | 84 |
| 0 | 0 | 3 | 11 | 100 | 100 | 100 | 90 | 95 |
| 0 | 0 | 2 | 12 | 100 | 100 | 100 | 100 | 100 |

*Reprinted with permission of Phyllis Magrab, Ph.D., Infant Symposium, University Affiliated Program for Child Development, Georgetown University, Washington, D. C., 1976.

Early in the evaluation process, it is important to obtain pediatric and eye medical examination reports after a child has been referred for services. Beyond that, it is vital that teachers and parents be aware of developmental milestones, including the age ranges at which critical reflexive behaviors diminish or appear.

Certain reflexes serve to sustain life between the time that the child receives nourishment from the mother's amniotic fluid and his use of voluntary movement. Examples are the rooting and sucking reflexes which enable the infant to find nourishment as he turns toward a tactual stimulus and finds and gets his mother's milk. Only a few of the many infantile reflexes are defined here.

| Reflex | Description |
|---|---|
| Moro: | A startle reaction caused by sudden noises, by rocking child backwards suddenly to put him off balance, or by sudden movement of his bed or support. The child should extend arms and fingers. After six months of age, this reaction may indicate delayed reflexive maturation. |
| Tonic Neck: (TNR) | Turning the head (neck) of the four-week-old infant increases muscle tone in the limbs toward which the head is facing. Limbs on the other side usually flex with both hands clenched. Premature babies and normal infants to one week old usually show this behavior. It should disappear by six months and is considered abnormal at eight months. |
| Crossed Adductor: | Elicited by tapping the tendon (adductor) of one thigh causing the adductor of opposite thigh to contract (toward the midline). It should diminish significantly by six months. |
| Head righting: | Child attempts to maintain the head in position so that the face is vertical and the mouth is horizontal to the ground. |
| Neck righting: (NRR) | With child lying in prone position, turn his head to side; legs will turn to the side that the head is turned; trunk and hips turn. If not apparent after six months, it may indicate delayed reflex maturation. |
| Supporting: | At four months, the child will begin to attempt to keep his head straight. Arms are extended as hands touch a horizontal surface. At five months, he will hold spine straight in the opposite direction of the displacing force. If not apparent after six months, it may indicate delayed reflex maturation. |
| Parachute: | If suddenly lowered toward floor with head down, arms and hands will extend; may appear by nine months; should be evident after 10 months. |
| Hand grasp: | Elicited by touching the palm of the hand with a fingertip, it should appear by nine to 12 months. |
| Palmar: | Touching palms of hands causes flexion of hands; it is stronger between the 12th day and third month; becomes weaker by sixth month and disappears by one year. |

| Reflex | Description |
|---|---|
| Plantar grasp: | Elicited by gently stroking middle of sole with fingertip, the toes will make grasping motion. This is the longest remaining neonatal reflex, disappearing at 12 to 18 months. |
| Landau: | When the neck is extended, the back arches and legs extend; with relaxation (dropping of head), there is relaxation of back and legs. |
| Stepping reflex: | Supported in a standing position, the infant will alternate leg movements in a stepping movement. |

Motor development consists then of extensive reflexive activity from birth to one month. From one to four months of age the infant begins repetitive movements (primary circular reactions). These circular reactions become secondary during the fourth to eighth month period and the child begins to show interest in the consequences of his behavior. It becomes goal-directed and there is a significant shift from body-centered (reflexive) to object-centered behavior (Bayley, 1968; Cratty, 1970).

If identified reflexes do not occur appropriately, it may indicate cerebral dysfunction and the need for neurological evaluation. The untrained, or lay, person will not know how to elicit some reflexes. The informed person, however, will be alert to gross discrepancies in expected developmental patterns.

This is not to suggest that parents or teachers assume the prerogative of diagnosis, but to urge that every effort be made to assure the child of appropriate and adequate medical and educational management. Public health research shows that many families in America do not have adequate medical care.

Psychologists and teachers measure motor development with various psychomotor scales based on certain motor tests. The results provide some indication of whether a child's development is in the normal range (that expected for children of average ability in his age group) or above or below the norm. Doctors usually compare achievements on the motor scale with generally accepted norms for the age at which given developmental behaviors are expected to occur. It is not our purpose to discuss the merits or weaknesses of the scales and methods available. The revised developmental checklist described earlier is provided here for teachers to assess children.

Researchers have found that motor and intellectual development are not synonymous in infancy and that there is no correlation between infant and later I.Q. tests. Infant tests measure sensorimotor and not cognitive skills. The latter are measured later by I.Q. tests. Developmental quotients for sensorimotor skills are useful predictors of developmental delay and, as such, are useful diagnostic tools for program planning. It is generally believed that while advanced motor development does not mean superior function, advanced language development indicates that retardation is unlikely (Bayley, 1968).

Primary references:

Fiorentino, M. R. Reflex Testing Methods for Evaluating C. N. S. Development. Springfield, Illinois: Charles C. Thomas, 1968.

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Many longitudinal studies of motor development in infants and preschoolers have been performed to see when certain motoric behaviors appear and to determine whether they are similar for children of the same age. From these studies, Hurlock (1973) lists five important principles of motor development.

1. Motor development parallels the maturation of the motor areas in the brain. The cerebellum, or lower brain, controlling balance, develops rapidly in the early years and is almost its mature size at the age of five years. The frontal lobes of the cerebrum, or upper brain, also develop early and control the skilled movements.
2. Although early practice may produce some gain, long-term results will be insignificant if attempts are made to teach the child skilled movements before his brain and nervous system are maturationally ready.
3. Motor development follows a predictable head-to-foot pattern and goes from mass to specific activities.
4. Although most researchers agree that the pattern of motor development follows predictable stages, they do not agree on the number of stages.
5. Individual differences affect the motoric pattern detail or the ages at which different children reach different stages.

Experimental studies largely agree on the normal or average pattern of stages of muscle control and the ages at which the average child can control his body. Motor development occurs in a developmental direction in the four major areas: the head, trunk, arms and hands, and feet. Researchers emphasize, however, that the infant develops as a single total reaction system and not in fragmented or isolated pieces of behavior fitting an inflexible sequence.

Parents must be reassured that slower motor development can be caused by their handicapped youngster having to learn to do things differently than the average sighted child. This does not mean retardation. They should be reminded that this is a time when early motor patterns occur which are basic to the development of more advanced behaviors. Gesell (1949) noted that, because all movements require adjustment of the total organism to conditions present, all motor behaviors are postural activities. Attention to posture in blind children's development must continue throughout their early years and school experience.

It should be emphasized that, while motor skills usually develop concurrently in a predictable sequence, skill may not reach an expected level due to discouragement, restricted or limited opportunity for movement and play, or supervention of another physiological drive. This usually causes a child to revert temporarily to a more primitive and adequate mode of behavior, e.g., resorting to crawling during early walking stages. It must be remembered that multihandicapped children will take longer to do almost everything, and that certain motor behaviors will not be possible for some children, i.e., those with severe cerebral palsy. Any program of motor development for these children should be implemented in close cooperation with parents and under the direction of a physical therapist and/or physician.

Delay and the need for further assessment must be suggested with sensitivity and caution. A more positive approach is to provide parent education courses in early child development and to maintain dialogue with others serving the child, i.e., physicians, physical therapists, social workers.

It must be emphasized that motor behavior is developmental and cannot be taught before the organism is ready. Realistic intervention must include: giving parents information about normal development, counseling them to provide needed opportunities for their children to develop and learn a behavior, and supportive reassurance that they are doing a good job.

The early intervention part of the motor development section is addressed to those providing parent-infant services at home, i.e., teachers, nurses, and social workers, for children from birth to three years old. Counseling and demonstration of adaptations and techniques are defined for parents of blind children in many activities.

PLEASE NOTE: SUGGESTED AGE APPROPRIATE LEVELS ARE PROVIDED TO FURNISH DEVELOPMENTAL GUIDELINES AND REPRESENT WHAT IS USUALLY TRUE FOR AN AVERAGE "NORMAL" OR UNIMPAIRED CHILD.

## PRIMARY REFERENCES

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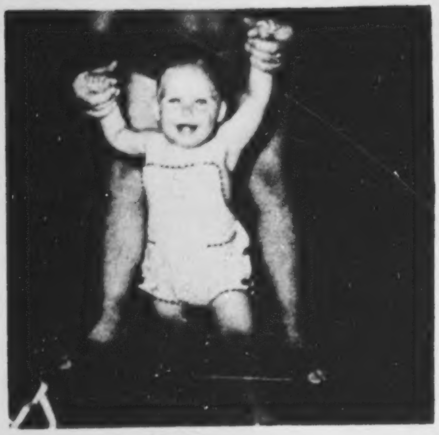
Finnie, N. R. Handling The Young Cerebral Palsied Child At Home. New York: E. P. Dutton & Co., Inc., 1975.

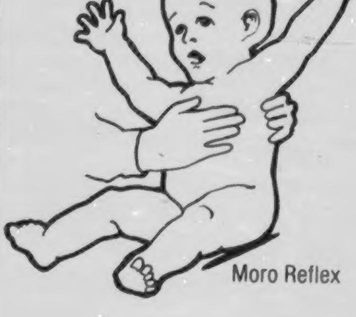
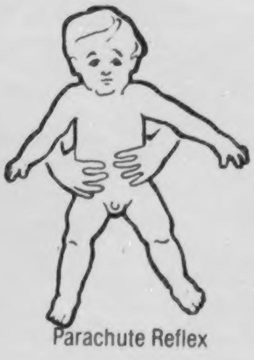
Gesell, A. The First Five Years of Life. New York: Harper & Row, 1940.

Ilg, F. L., & Ames, L. B. Child Behavior. New York: Harper & Row, Publishers, 1966.

Johnston, R. B., & Magrab, P. R. Developmental Disorders: Assessment, Treatment, Education. Baltimore: University Park Press, 1976.

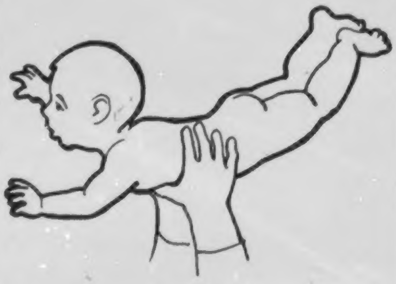


## Gross Motor

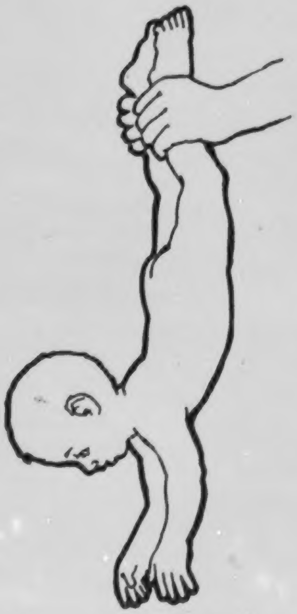
| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| Birth-3 mos. | To develop head control<br><br>Moro Reflex | Observe Moro, TNR reflexes<br>Control of all movements is expressed in the muscles, joints, eyes, and ears, and rests in the brain.<br>Placed in prone position, child will hold head up briefly.<br>In a sitting position, child's head will be erect and bobbing when supported.<br>Pull to sitting position; head should be erect and steady.<br>Note: the blind child must be shown how to lift his head since he has no visual stimulus to do so. Speaking softly, praise him as you lift his head and turn it from side to side. |
| | To make beginning creeping motions | Place the child on his stomach on a flat surface and provide opportunity for exercise and movement.<br>Stimulate by use of visual, auditory, or haptic (gently rubbing legs or back) stimuli. In some cases it may be necessary to manipulate the limbs of the infant thus providing haptic stimulation and initial muscle patterning. |
| 4-8 mos. | To develop grasp<br><br>Parachute Reflex | Child holds head erect and back stable when pulled to sitting position and now grasps bottle with both hands. Keep brightly colored objects within reach. Change them often.<br>Reinforce with small items, i.e., cereal pieces, to improve grasp.<br>Observe reflexes:<br>Neck righting (NRR)<br>Parachute<br>Hand grasp |

Motor Development
EARLY INTERVENTION

Gross Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| 4-8 mos. | | Note: Hold the blind child on your lap with his back against your stomach. Play with rattle or toy just above eye level to encourage lifting of the head. Reinforce! |
| | To demonstrate appropriate rolling movement | To roll from back to stomach, the child will first lift head and shoulders moving shoulders and hips at the same time (rotation). |
| | | Child sits alone steadily if placed in position where head and body are stable.<br>-Reinforce with play and much talk as child becomes accustomed to the sitting position. |
| | To begin to creep and crawl | Prior to this, the normal child will usually pull himself to standing position in crib or playpen. Put him in open space on floor as often as possible. It is doubly important that the blind child be given freedom to move and exercise on the open floor. |
| 9-12 mos. | To sit alone | Visually impaired children begin to sit at about the same time that sighted children do. Frequent sitting, propped up by pillows or against an adult's stomach with playful rocking side to side will help to develop balance. |
| |  | Sensory stimulation is always important. Gentle handling, singing and talking to him will convey feeling tone conducive to happy experience. |
| | | For the blind child, words come from somewhere without form or shape and go away in the same manner. This kind of activity can establish the beginning of his spatial awareness and concept development. |
| | Landau Reflex | Landau reflex: arching of back and extension of legs when neck is extended. Some neurologists believe child is not ready to walk until this reflex is observed. |
| | To creep and crawl | If the child has any vision, use a large mirror in front of him. |

Gross Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| 9-12 mos. | Protective Reflex<br> | This is the first independent mobility skill and a blind child usually will not begin to crawl independently. Objects have no meaning for the child who does not see them, unless they make a sound or have an odor. If the child can lift his head and chest (when lying on his stomach), begin to move his arms and legs alternately, slide him along so that he "feels" movement. Use sounding toys and much verbal encouragement.<br>As child develops motion, place pillow or bolster under abdomen. Individual children may need instruction to keep palms on floor, head up, knees tucked in.<br>Provide walker toys and plenty of room to move.<br>Protective reflex (6-10 mos.): responses to changes in body position<br>Recommended toys: pots and pans in lower kitchen cabinet (that is "his"), plastic dishes, balls, blocks |
|  | To stand alone | Blind children are usually insecure when first standing because so little of their bodies are in contact with a surface. It is wise to arrange an area with defined space that they can explore holding on to objects along the perimeter (starting with the crib). Expand the area as it becomes familiar to the children. |
|  | To assume a standing position with assistance | Counsel parents:<br>This will happen when child is developmentally ready. Provide the opportunity.<br>Play with child on the floor near a clear sturdy low table surface. Use sounding object or brightly colored object in play, putting it down on the table top. Assist him to pull up and reach it. |

Motor Development
EARLY INTERVENTION

Gross Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| 9-12 mos. | To demonstrate mid-line skill by combining cubes or spoons or playing pat-a-cake | Demonstrate activity to parents:<br>Place child in sitting position opposite you with spoons or cubes in front of him. Pick up one in each hand and clap them together at the midline. Assist him to do the same thing.<br>Touch your hands together and then touch his hands singing pat-a-cake. |
| | To bend and pick up object returning to standing position | It has been observed that blind children may maintain a "feet-wide-apart stance" for longer than their sighted peers.<br>It is important to provide this experience for blind children. Those with normal vision generally begin to pick up objects while holding onto support at about 9 1/2 months. Effective "search techniques" can be initiated at this time. |
| 10-18 mos. | To begin walking | Most importantly, provide open space and opportunity for walking. Reaching for sounding objects or people are requisite skills to talking for the blind child. The child must seek the source of sound, smell, or need, or there is no reason for walking.<br>Due to restrictive environments, some blind children reach the stage of physical readiness to walk before they have learned to crawl, thereby skipping the crawling phase.<br>A longer time walking around and holding on to furniture may be required by a blind child before attempting to walk independently.<br>Hold both hands and help the child's stepping movements toward you. Reinforce! |
| | To walk a few steps unsupported | Gradually increase distance as child walks to you. Reward with hugs and praise!<br>Plantar grasp: last neonate reflex to disappear |

Gross Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| 12-18 mos. | To begin to creep up and down 2 to 3 steps | Until you have trained a blind child to go up and down stairs and where the stairs are located, use a gate to prevent a dangerous and, perhaps, traumatic fall!<br>Explore stairs with child on hands and knees, beginning with first two or three.<br>Take cues from child. Hold his hand as he creeps or holds to railing going upstairs. Show how to creep downstairs backward and then one step at a time safely. As muscle tone and confidence develop, child will increasingly hold rail and negotiate stairs independently. Goal: descending stairs, alternating feet, holding railing. |
| | To walk sideways | |
| | To walk backwards | |
| | To begin to run and jump | It is important that a blind child be taught to run as soon as he has learned to walk. This may begin by holding an adult's hand at a "fast walk" (with increasing speed as skill develops). Early running is characterized by a wide-based stance (feet far apart and toes somewhat turned out for better balance). A narrow-based stance appears as the child develops.<br>The setting should be free and open so that confidence may develop without fear of collision.<br>Trailing a wall indoors with fingers of one hand (slightly flexed) and by touching a rope (outdoors) as the child runs, helps to develop speed and confidence. |
| 18 mos. - 2 yrs. | To throw and kick a ball without falling | Roll ball to child in sitting position<br>Stand child in front of adult with his arms extended, elbows bent. Show how to bring his arms up around the ball close to his chest. |

Gross Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| 18 mos. - 2 yrs. | | As readiness develops, child will<br>- throw ball without support;<br>- retrieve ball independently.<br>Provide opportunities to throw a ball while holding on to some support. For blind children, the ball should have a sounding object in it, i.e., bell in beach ball.<br>Show child how to kick the ball by pulling his foot back and bumping the ball. Child holds on to chair for balance as he learns to kick the ball but will gradually release this dependence as skill develops. |
| | To walk up and down stairs alone, not alternating feet | Competencies emerging are<br>- Attending to book and turning pages<br>- Crayon and paper activities |
| 24-30 mos. | To maneuver through his environment by walking from one location to another of his choice | To orient a visually impaired child to a room, holding his hand, walk into the room turning right inside the door. Teach him the names and order or location of objects, furniture, windows, doors all the way around the wall back to the door where you entered. Do this often.<br>Explore each part of room carefully. Use nouns to describe. Allow independent explorations. Praise successes (hug, express joy).<br>Give simple request<br>"Pick up your ball on the table."<br>"Bring it to me."<br>Keep games simple, rewarding, and fun. |
| 24 mos. - 3 yrs. | To jump in place | Sighted children learn to jump by observing and experimenting, i.e., jumping in their cribs holding on to the side. Blind children, however, often do not discover the possibility of support from the rail and the resilient spring in the mattress. |

Gross Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| 24 mos. - 3 yrs. | | To teach the blind child to jump, place hands under his arms and bounce him up and down on his feet.<br>Facing the child, hold both hands and bring them up telling him to "jump". When child has begun to initiate jumping, hold only one hand. As confidence and balance develop, encourage him to jump alone. |
| | To ride tricycle | The sighted child again has the utility of vision to teach him how to mount and push a tricycle.<br>Guide the blind child in exploring every part of the trike and how to push it.<br>Give assistance in mounting, and understanding, and using the handlebars.<br>Demonstrate how to push down pedals with child's feet on them. Straps or stirrups will prevent early awkward and frustrating slipping from pedals.<br>This is an excellent pre-mobility activity. A blind child should be shown how to follow the cement (by comparing the feel of riding on grass). A rope can be tied to the tricycle handlebars to give early assistance in steering. |
| Fine Motor | | |
| Birth-3 mos. | To demonstrate the ability to grasp an object (appropriate for child's developmental level) | The infant first attempts to grasp with his palm and fingers. Because blind children do not see objects, it is necessary to use one which makes a sound, i.e., bell, rattle. Select a toy easy for a small hand to grasp and close the child's fingers (hand) around it. Gradually remove your hand as his grasp strengthens. Hold toy above him at midline and shake it, touching him occasionally with it to assist him in locating it. |

Motor Development
EARLY INTERVENTION

Fine Motor

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Activities/Counseling |
|---|---|---|
| Birth - 3 yrs. | | Brightly colored mobiles and objects should be hung over the crib within reach and focal range. Children with very low remaining vision need maximum vision stimulation. These stimuli should be changed often. |
| 3-6 mos. | | Child will grasp rattle or bottle with both hands. |
| | | Child picks up small objects, i.e., cube, bead with thumb and index finger. |
| 6-12 mos. | To perform simple manipulation tasks | It is essential that the visually impaired child experience an abundance of brightly colored, stimulating, sounding objects that he can hold and manipulate. The blind child must be shown how to transfer objects from one hand to another initially, and with enough stimulating experiences, i.e., games, he should stay even with his sighted peer in manipulative ability. |
| | | Child consistently will use index finger to poke and finger and thumb to grasp. |
| | | Access to many objects that can be handled should be provided, i.e., cups, cubes, beads, finger foods, pots, pans, lids. |
| 12-24 mos. | | Child will imitate vertical strokes. Sand play and use of sandpaper to develop this behavior is effective. Adult holds child's hand lightly under hers. Guide the child's index finger in vertical stroke in sand and on sandpaper or other texture. |
| 24-36 mos. | | Large crayons and paper experiences should begin for children with residual vision. |
| | | Children can now copy a circle and a cross and can draw a person (no more than three parts). |

Name ____________________

Age _____years _____months

Date of Assessment _______

Motor Development
PHYSICAL EDUCATION

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | 1. To show understanding of the basic movement skills by performing them, i.e., walking, skipping, hopping, galloping, running, bending, stretching, crawling, sliding, pulling, pushing, climbing | | | |
| | 2. To develop understanding of the movement described in Objective #1 to comparable responses to rhythm | | | |
| | 3. To demonstrate enjoyment of free and creative rhythm by willing participation in activities involving these rhythms | | | |
| | 4. To indicate increasing development of large muscles by using equipment with increasing agility | | | |
| 4-5 yrs. | 5. To begin to demonstrate an understanding and appreciation for physical fitness | | | |
| | 6. To show understanding of movements necessary to handle a ball by performing these ball-handling skills with increasing ability | | | |
| | 7. To demonstrate ability to listen and follow physical education teacher's directions by performing activities as they are described; and by obeying safety rules | | | |
| 5-6 yrs. | 8. To demonstrate increasing ability to walk balance beam by participating in group activities involving walking on balance beam | | | |
| | 9. To display sense of fairness by taking turns and sharing equipment | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Motor Development
PHYSICAL EDUCATION

Objective #1:

To show understanding of the basic movement skills by performing them, i.e., walking, skipping, hopping, galloping, running, bending, stretching, crawling, sliding, pulling, pushing, climbing

Context/Materials:

Open play area (inside and out), slide, jungle gym
Action pictures

Activities:

1. Child participates in these activities individually and with rest of group.
2. Teacher directs children to move around area any way they want (run, walk, etc.). On signal (hand clap, bell), they change their way of moving, i.e., children who were walking change to a run, or crawl, etc.
3. Teacher directs children to move the way an animal moves (dog, cat, mouse, etc.).
4. Teacher poses problem for children to solve in any number of ways, i.e., "How many ways can you walk across the room?" Children walk forward, backward, sideways, balancing an object, etc.
5. Children play follow the leader.
6. Teacher shows children an action picture and they copy the motion.
7. Children act out words, using whole body, i.e., tired--yawn, stretch, slump to the ground.

Objective #2:

To develop understanding of the movement described in Objective #1 to comparable responses to rhythm

Context/Materials:

Record player and records, piano, rhythm instruments

Activities:

Children participate as a group in rhythmic activities involving all movements described in Objective #1.

Objective #3:

To demonstrate enjoyment of free and creative rhythm by willing participation in activities involving these rhythms

Context/Materials:

Record player and records, piano, rhythm instruments

Activities:

Teacher plays piano, record player, or rhythm instrument as children act out the way music and rhythm make them feel.

---

Objective #4:

To indicate increasing development of large muscles by using equipment with increasing agility

Suggested Materials:

Climbing equipment, slide, horizontal ladder, teeter-totter, tricycle, scooter

Activities:

1. Teacher allows free play time during the day for children to play using equipment mentioned above.
2. Teacher observes and records increasing development of large muscles.

---

Objective #5:

To begin to demonstrate an understanding and appreciation for physical fitness

Suggested Materials:

None

Activities:

1. Group performs exercises together each day, for example, stretching, jumping

Objective #5

Activities (continued)

jacks, movement exploration.
2. Child participates willingly in these daily exercises.
3. Child identifies body fitness as one of health needs.

---

Objective #6:

To show understanding of movements necessary to handle a ball by performing these ball-handling skills with increasing ability

Suggested Materials:

Large rubber balls

Activities:

1. Child performs these activities with the ball: throw, catch, bounce, roll.
2. Teacher asks child, "How many different ways can you stop a moving ball?" Child stops ball by catching it with hands, with his foot or chest, by catching it in a can, etc.
3. Child rolls ball to specific target (hole in the ground, bowling pin, etc.)

---

Objective #7:

To demonstrate ability to listen and follow physical education teacher's directions by performing activities as they are described, and by obeying safety rules

Suggested Materials:

Child- and teacher-made chart presenting simple safety rules and standards

Activities:

1. Child listens to teacher's directions.
2. Child performs activity as it was demonstrated and described.
3. Child observes safety rules.

Objective #7

Activities (continued)

4. Teacher observes and records frequency that each child: 1) listens to directions, 2) performs the activity as it was described, 3) obeys safety rules.

Objective #8:

To demonstrate increasing ability to walk balance beam by participating in group activities involving walking on balance beam

Suggested Materials:

Balance beam, providing wide and narrow walking spaces

Activities:

These activities are performed on the balance beam: 1) walking forward, 2) walking backward, 3) turning around on beam, 4) walking with eyes closed, 5) walking forward with arms outstretched, 6) walking forward while balancing bean bag on head.

Objective #9:

To display sense of fairness by taking turns and sharing equipment

Suggested Materials:

Classroom and playground equipment

Activities:

1. Teacher encourages sharing and taking turns in play and work interactions.
2. Teacher observes and records frequency that child shares equipment and allows peers to have equal turns.

# DEFINITION OF TERMS

amentia: congenital lack of mental ability; mental deficiency

anoxia: absence or lack of oxygen

Apgar scores: numerical score of the condition of the newborn infant at sixty seconds after birth: the sum of points gained on assessment of heart rate, respiratory effort, muscle tone, reflex irritability, and color

auditory: pertaining to the sense of hearing

bilateral: having two sides; pertaining to both sides

configuration: the general form of a body or object

contralateral: situated on or pertaining to the opposite side

cross lateral: crawling by moving the left foot and the right hand, then the right foot and left hand

dynamic posture: concerned with the translations and readaptations of postural set in the achievement of postural movements

fine muscular (motor) skills: writing, playing musical instruments, doing skilled manipulatory work

gestation: pericd of development from fertilization of ovum

gross muscular (motor) skills: running, jumping, lifting, climbing

habit: any kind of smooth running, repetitive activity (motor habit: composed of recognizable patterns.) (Hilgard, p. 52)

haptic: tactile; sense of contact, touch

herpes: an inflammatory skin disease characterized by the formation of small vesicles in deep clusters

homolateral: ipsilateral; pertaining to the same side; crawling by moving the left foot and left hand, then the right foot and the right hand

hyperglycemia: abnormal increase of blood sugar

hypocalcemia: reduction of blood calcium below normal

hypoxia: low oxygen content

icterus neonatum: physiologic jaundice

individuation: the process of developing individual characteristics

ipsilateral: homolateral; pertaining to the same side; crawling by moving the left foot and left hand, then the right foot and right hand kernicterus "nuclear jaundice": a condition with severe neural symptoms associated with high levels of bilirubin in the blood . . . accompanied by widespread destructive changes

locomotor: pertaining to movement from one place to another

manipulation: skillful or dextrous treatment by the hand

midline: a line marking the middle of a body or object

motor skills: fine coordinations in which the smaller muscles play a major role; can be described as rapid, accurate, automatic, and smooth; a very complex process involving differentiation of cues and continual correction of errors. (Cronbach, p. 24)

neonatal: pertaining to the first four weeks after birth

olfactory: pertaining to the sense of smell

postural adjustments: adjustments of the organism as a whole to its environment

postural fixation: those stabilized body attitudes by means of which the child achieves balance and steadiness

postural sets: nerve-motor fixations by which the child achieves station, balance, stance, steadiness, and preparatory poise (Gesell, p. 185)

prehension: the act of seizing or grasping

pre-kindergarten: pre-school age (three years to kindergarten readiness)

prone: lying flat

proprioreceptive: receiving stimulation within the tissues of the body

proprioreceptor: sensory nerve terminals which give information concerning movements and position of the body. (Chiefly in the muscles, tendons, and the labyrinth.)

putrefaction: enzymic decomposition, particularly of proteins, with the production of foul smelling compounds, i.e., hydrogen sulfide, ammonia

sepsis: infection which is caused by the products of a putrefactive process

skill: a well learned habit

static posture: concerned with poise, stance and assumed motor attitudes of the body and it's parts

Steps in normal development (Gesell, p. 186):

pre-nascent stage: complete absence of function

nascent stage: imperfect, inadequate, sporadic manifestation of the function in loose and variable associations with several postural sets assimilative stage: more positive performance of function which, however, depends upon particular postural sets, and accessory reinforcing postural attitudes

coordinating stage: perfected performance limited to these particular postural sets but with sloughing off of the accessory postural attitudes, previously necessary

stage of synergic individuation: independence from restricted postural sets; versatile performance smoothly synergized with many different postural sets

supervention: the development of some conditions in addition to an already existing one

supine: lying on the back with the face upward

synergize: acting together or in harmony

tactile: pertaining to the touch

tactual: pertaining to or accomplished by the touch

unilateral: affecting only one side

# intervention strategies

Chart 3

## Language Development Objectives

| Developmental Sequence | Modality | | | | | |
|---|---|---|---|---|---|---|
| | Tactual and Physical Awareness | Physical and Self Awareness | Nominative Self and Social Awareness | Affective Self and Social Awareness | Effective Self and Social Awareness | Spatial, Temporal, and Thermal Awareness |
| Category | Objective #1 | Objective #2 | Objective #3 | Objective #4 | Objective #5 | Objective #6 |
| RECEPTIVE | Understanding verbal identification of objects | Understanding verbalized needs and wants as they relate to self | Understanding verbal identification of people | Understanding verbalized interpersonal affect | Understanding verbalized commands | Understanding verbalized identification re: space, time, etc. |
| IMITATIVE | Imitative verbalization re: object identification | Imitative verbalization re: self-concept | Imitative verbalization re: people identification | Imitative verbalization re: interpersonal affect | Imitative verbalization of commands | Imitative verbalization re: space, time, etc. |
| EXPRESSIVE | Child-initiated verbalization re: object identification | Child-initiated verbalization re: self-concept, needs, etc. | Child-initiated verbalization re: people identification | Child-initiated verbalization re: interpersonal affect | Child-initiated verbalization of commands | Child-initiated verbalization re: space, time, etc. |
| INTEGRATED EXPRESSIVE | Complex communication re: object identification | Complex communication re: self-concept | Complex communication re: people identification | Complex communication re: interpersonal affect | Complex communication re: commands | Complex communication re: space, time, etc. |

SAMPLE FORMAT

## INDIVIDUAL LANGUAGE DEVELOPMENT
## VOCABULARY INVENTORY AND PHONEME ACQUISITION

NAME ____________

I. Phoneme Acquisition

Date First Verbalized

II. Syllable Vocalization

Date First Vocalized

NOTE: Words are alphabetized for easy reference. They should be presented in the order of those occurring first, e.g., milk, cookies, juice, and in the order of those easiest to say in terms of beginning sounds first learned!

| | Receptive Language | Imitation Following Stimulation | Expressive Language | Integrated Expressive Language |
|---|---|---|---|---|
| III. Vocabulary Acquisition | | | | |
| A. Category | | | | |
| 1. Tactual Awareness | | | | |
| a) Food | | | | |
| apple | | | | |
| applesauce | | | | |
| beans | | | | |
| bread | | | | |
| butter | | | | |
| cakes | | | | |

# Language Development

## Suggested Vocabulary

## I. TACTUAL AWARENESS

### A. Food:

potatoes
french fries
cole slaw
salad
cracker
juice
milk
water
corn
beans
cookie
cake
peaches
peanut butter
macaroni
cranberry
turkey
peas
chicken
bread
butter
pudding
hamburger
fish
spaghetti
jello
popcorn
ice cream
fruit
pie
apple
applesauce
soup
vegetable(s)
sandwich
tuna
cheese

### B. Utensils:

spoon
napkin
cup
towel (paper)
dish
tray

### C. Clothing:

bib
pants
belt
coat
hood
shirt
sweater
shoe(s)
hat
buckle
dress
gloves (mittens)
sock(s)
jacket

### D. Toys:

blocks
slide
ball
telephone
horn
autoharp
jumper (trampoline)
air bubbles (plastic)
boat
beads
car (beep-beep)
doll
drum
play-dough
house (doll-play)
buggy
bell
popper
(doll's body parts)
piano
tunnel
paint

### E. Furniture:

lights
"fridge"
rock(ing) chair
floor
box
sink
bed
chair
wall
door
box top
paper
blanket
table
bag
cabinet
toilet

### C. Interpersonal Affect/Physical Activity

hug
hi (hello)
please
good boy/girl
hit
carry (to be carried)
short finger plays

kiss
bye-bye (goodbye)
good
tickle
pinch
"How are you?"

I love (love)
thank you
big boy/girl
nite-nite (goodnight)
hold (to be held)
hand games

### D. Following Commands:

hold on (carry)
go
sit (down)
take (one)
throw the ____
scoot up
shut the ____
no hands on ears
head down
arm in
turn on water

come (to me)
stop
lie (down)
shhhhh
drop the ____
open the door
(open)
two hands please
put on
push/pull
dry hands

walk (to me)
stand (up)
give (me)
pick up
find the ____
hold still (head, legs, etc.)
(shut)
head up
take off
push (desk, tray, etc., away)
you say - you do, sing, etc.

## IV. Thermal Awareness

### A. Discrimination: (feels)

hot
ice (icy)

cold

warm

### B. Identification

### C. Comparison: (degree of relationship)

## V. Spatial Awareness

### Places/Directions:

here
bathroom
in/out
turn (around)

here I am
in the other room
home
back up

there
outside/inside
school

## VI. Temporal Awareness

Routine/Schedules (Time to):

eat
get coats
rest

get juice
work
go home

sing
walk

## II. PHYSICAL AWARENESS

### A. Body Parts:

head
arm
toes
nose
tongue
tummy
hair
finger
leg
mouth
eye(s)
hand
foot (feet)
knee
teeth
ear(s)

### B. Body Activity:

eat
go
scoot up
walk
arm(s) up
leg(s) (feet/foot) up
fall down
sleep
pat-pat
chew
push
pull
slide down
jump
dance
lie (down)
run
arm(s) down
stretch
rest
wash (hands)
go (to) bathroom
climb
cough
cold--sore throat
hold/carry
stop
sing
stand (up)
head down/up
leg(s) (feet/foot) down
clap hands
ride (car, buggy, etc.)
dry (hands, face)
bite
rock
sneeze (ahchoo)
knock-knock
say/talk

## III. SOCIAL AWARENESS AND RELATED SELF-AWARENESS

### A. Names (Family members, staff):

1. All family members
2. All significant others, adults and peers, in the family setting
3. All significant others, adults and peers, in the school setting
4. All significant others within the child's social setting

### B. Self-Perception (Expression of needs and wants)

yes
done (all done)
I don't want to
empty
eat
bed
sad
cry
mad (angry)
down (get, stand, sit)
no
I am all done
I like it
bump
go bathroom
happy
laugh
funny
(go) home
up (get, stand, sit)
I want
more (I want)
full
hurt
tired (am I? are you?)
thirsty (am I? are you?)
hungry (am I? are you?)
water (juice) (want)
go (outside-inside)

## DAILY LOG

Name: ____________________

Date ____________________

<table>
<tr><th></th><th colspan="2">Time Block</th><th colspan="2">Description</th><th>With/by Whom</th></tr>
<tr><td>I. FOOD EXPERIENCE<br>A. Meals<br>1. Breakfast<br>2. Lunch<br>3. Dinner<br>B. Snacks<br>1. A.M.<br>2. P.M.<br>3. Evening</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>II. SLEEP SCHEDULE<br>A. Rising (roused by, dressed by)<br>B. Napping<br>C. Bedtime (undressed by, story, bathed, etc.)<br>D. Sleep Pattern (interrupted? why? when?)</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>III. ACTIVITIES-INTERACTION PATTERNS<br>A. Response to verbal/nonverbal communication<br>B. Imitation of verbal communication<br>C. Verbal response to verbal communication<br>D. Child initiated verbal communication</td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td>IV. TOILETING</td><td>P.M.</td><td>A.M.</td><td>Kind</td><td>Used toilet?</td><td>Before school?</td></tr>
<tr><td>V. SPECIAL CONCERNS/NOTES OF INTEREST</td><td colspan="2"></td><td></td><td></td><td></td></tr>
</table>

## RATIONALE

The section is intended to provide some specific aids to the teacher who is attempting to stimulate language.

Under each heading, suggestions are made for stimulating receptive, imitative, and expressive language around a concept. The rationale for this approach relies on the developmental theory which assists the child in understanding, labeling, and controlling things in his world of reality. Thus, the child learns to experience and understand the reality of bread/milk, etc.; learns to verbally imitate and label the word, and finally to express and make the idea part of his reality.

These activities in Format 1 can be used as a total program or to supplement those provided under the specific headings of receptive, imitative, expressive, language.

## SUGGESTED MATERIALS

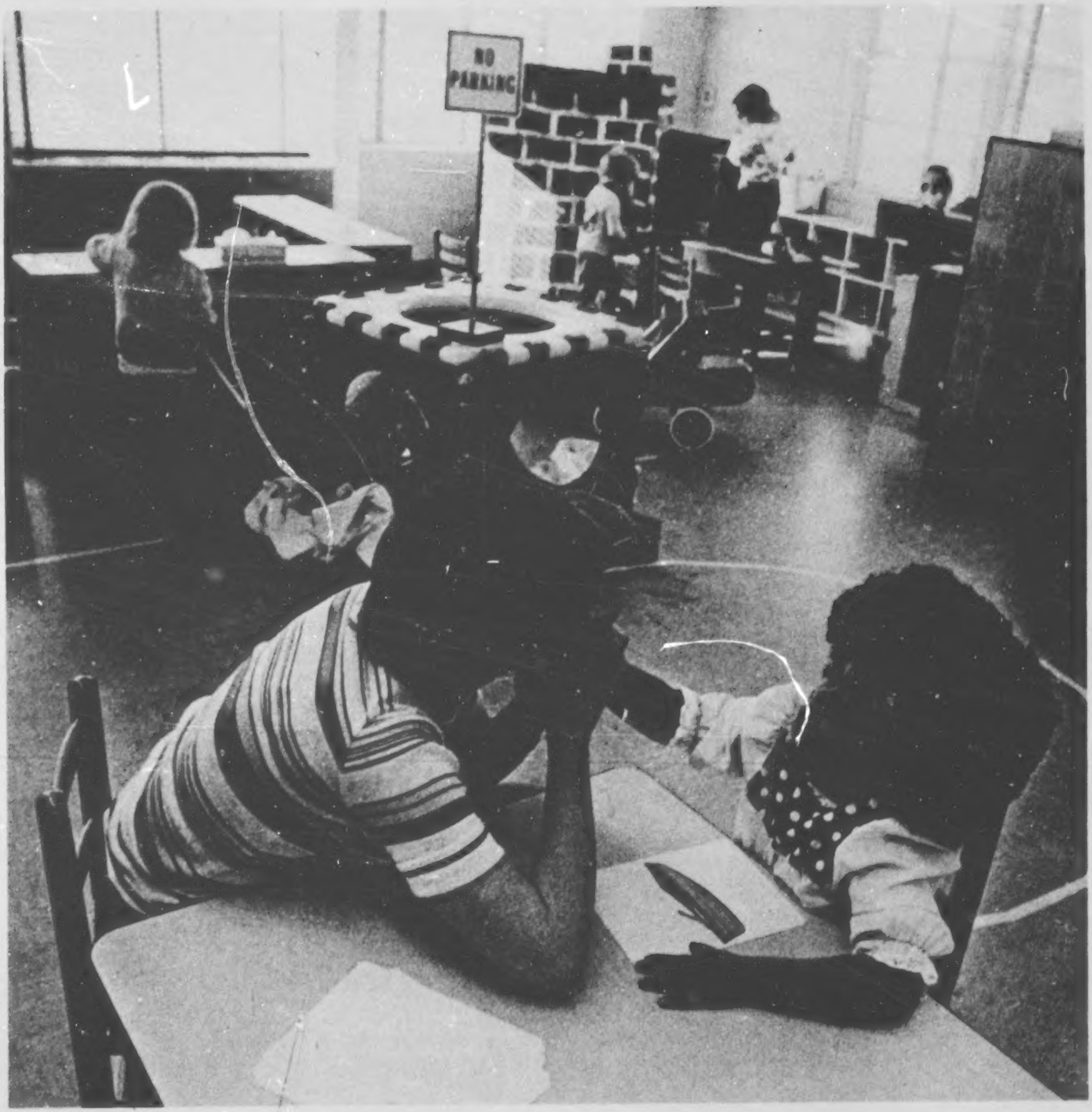
Every material item in the child's immediate environment offers possible opportunity and should be utilized as an appropriate language stimulus. Every incident provides an opportunity to encourage receptive, imitative and expressive language.

Although commercial kits and prepared "language materials" may be quite useful, many of the market variety utilize visual clues extensively and thus may not be totally adequate for use with the visually impaired child.

It is recommended that each teacher set up boxes (kits) of language stimulation materials--developed around the basic vocabulary to be promoted.

1. Clothing (child size and doll size)
2. Toy rubber animals in two sizes
3. Dishes and flatware (real and toy)
4. Items that are soft and hard (golf ball, sponge ball, etc.)
5. Items that can be counted 1-10 (small blocks, plastic spoons, large pegs, spools, etc.)
6. Items that can be identified by sound (bell, sandpaper, whistle, horn, keylock, tom-tom, xylophone)
7. Sets of shapes in at least two sizes--square, round, triangle, oblong (wood, rubber, felt, sandpaper, sponge)
8. Set of toy furniture, sturdily constructed to identify, sort, and classify according to use, room, size, etc.
9. Set of rough/smooth articles, i.e., small styrofoam rubber blocks covered with different textured materials (felt, velvet, burlap, silk, fake fur, sandpaper)
10. Sets of cassette tapes with recorded sounds for identification (telephone, door chimes, car horn, dog bark, child's laugh)

NOTE: A picture inventory of materials using 5"x8" cards should be developed as kits are made. (Sample cards: Appendix A)


NO PARKING

Name ____________________

Age _____ years _____ months

Date of Assessment _________

Language Development
SUGGESTED ACTIVITIES
Format I

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Self<br>1. To display understanding, by identification (receptive and expressive) of body parts | | | |
| | Self<br>2. To display specific understanding, by identification (receptive and expressive) of function of body parts | | | |
| | Clothing<br>3. To recognize and specifically identify, receptively/expressively, all common articles of clothing | | | |
| | Family<br>4. To recognize and specifically identify (receptive and expressive language) family members by name | | | |
| | Family<br>5. To recognize and specifically identify (in receptive and expressive language) the relationship role of each family member | | | |
| | Family<br>6. To recognize and specifically identify with receptive and expressive language whether each family member is a boy, girl, man, or woman | | | |
| | The Home--Structure-Rooms<br>7. To recognize and specifically identify receptively/expressively the structure and rooms of home | | | |
| | Home--Furnishings<br>8. To recognize and specifically identify (receptively and expressively) all major furnishings in the home and the usual purpose and location of each | | | |
| | Home--Furnishings<br>9. To recognize and specifically identify the function of major household furnishing items | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Language Development
SUGGESTED ACTIVITIES
Format I

| Age Appropriate | Objectives | Response (+) | Response (-) | Response (o) |
|---|---|---|---|---|
| | Food<br>10. To recognize and specifically identify (receptively and expressively) all common food items | | | |
| | Expression of Needs-Wants<br>11. To recognize and specifically identify and verbalize all immediate needs and wants | | | |
| | Expanded Social Contacts<br>12. To recognize and specifically identify (receptively/expressively) all non-family persons in the child's immediate/daily environment in school and in neighborhood | | | |
| | Animals<br>13. To recognize and specifically identify (receptively/expressively) all common domestic and some circus/zoo animals | | | |
| | Size<br>14. To recognize and specifically identify receptively/expressively gross size differences: concepts of big-little | | | |
| | Number<br>15. To recognize and specifically identify the concepts of one-two-three | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Category: Self

Objective #1:

To display understanding, by identification (receptive and expressive) of body parts

Context:

Doll, wood puzzle form, records, tapes, Hap Palmer Records

Song, "Wake Up" - from record "Songs to Grow On", Vol. 1, Nursery Days, Woody Guthrie, Folkways Records and Service Corporation, N.Y.C., 1950

Activities:

Suggested Context: self, peer, an adult

1. Child correctly repeats after another the names of body parts while touching part on self, on a doll, and on each other.
2. Child identifies nonverbally, then verbally, a body part while playing "Simon Says, Head (Shoulders, Knees, Toes)," etc.
3. Child identifies and correctly names body part when directed.
4. Child identifies verbally, names, and correctly organizes body parts of large babydoll.
5. Child identifies verbally, names, and correctly organizes body parts of wood boy/girl puzzle.
6. Child actively participates in identifying body parts while listening to records, i.e., "Hokey Pokey" and/or singing finger plays, i.e., "One finger, one thumb, one hand, two hands," or "Put your finger on your _____ (nose, ear, etc.)."

Additional Activities:

Playing games which require the child to: identify body part on direction; identify and correctly repeat body part name; identify and expressively verbalize body part when touched, when touching another, on a doll, on a puzzle

---

Objective #2:

To display specific understanding by identification (receptive and expressive) of function of body parts

Objective #2 (continued)

Context:

Doll, puzzles

The Busy Body Book, A Tell-Tale Book, by Whitman, Western Publishing Company, Inc., Racine, Wisconsin, 1975
Hap Palmer Records -

Activities:

Suggested Context: self, peer, an adult

1. Child can upon direction carry out an activity, i.e., clap your hands, touch your nose, stamp your foot, walk, run, jump, comb your hair.
2. Child can repeat verbal direction.
3. Child can carry out above directions correctly, playing "Simon Says," etc., while verbalizing activity.
4. Child correctly carries out directed activities alone and in a group while responding verbally with a chant or music, i.e., walk, run, clap, wash hands, wash face, etc.
5. Child correctly completes verbally structured sentences, i.e., I smell with my nose , I hear with my _____, I chew with my _____, etc. I have a nose to _____, I have ears to _____, I have legs/feet to _____, etc.
6. Child initiates a verbal statement: I hear _____, I smell _____, I hold _____, etc.

Additional Activities:

Responding appropriately to song "If you're happy and you know it, clap your hands," by the child.

Attending (enjoying) a story about his body (i.e., The Busy Body Book) by each child.

---

Category: Clothing

Objective #3:

To recognize and specifically identify, receptively/expressively, all common articles of clothing

Objective #3 (continued)

Context:

Sample articles of child's own clothing, doll clothing

Record, "Songs to Grow On," Vol. 1, Nursery Days, Woody Guthrie, Folkways Records and Service Corporation, N.Y.C., 1950

Activities:

1. Child repeats name of article while touching it, wearing it, putting it on, taking it off, and while it is being given to him.
2. Child identifies clothing article when requested, i.e., "Find your shoe/sock/shirt/dress, etc."
3. Child names article of clothing when it is presented, while putting it on, taking it off.
4. Child dresses, undresses doll, and names articles of clothing.
5. Child chants with teacher: "Johnny has a blue shirt, blue shirt, blue shirt, Johnny has a blue shirt on today."
6. Child gains familiarity with items of clothing kept on clothes tree for practice.

Additional Activities:

Categorizing clothing appropriate for boys and girls for each season of the year.

---

Category: Family

Objective #4:

To recognize and specifically identify (receptive and expressive language) family members by name

Context:

Child with each family member

Activities:

1. Child repeats correctly the name of each member.

Objective #4:

Activities (continued)

2. Child correctly names each member when asked "_____, who am I?"
3. Child correctly names person upon hearing family member's voice.
4. Child correctly identifies family member's voice on tape.
5. Child initiates verbal contact and correctly identifies family member, i.e., "Mommie, may I have a cookie?", "Jimmy, give me back my ball."

Additional Activities:

Each child tells about his family, i.e., the work each parent does, how brothers and sisters work and play together.

Teacher assists children in making a family book.

---

Objective #5:

To recognize and specifically identify (in receptive and expressive language) the relationship of each family member

Context:

Child with each family member

Activities:

1. Child recognizes and repeats relationship of each family member while touching: mommy, daddy, brother, sister, grandma, grandpa.
2. Child recognizes and repeats relationship of each family member upon hearing person's voice.
3. Child responds in game setting: Family member chants child's name. Child chants back, i.e., mommy, daddy, sister, etc. Mommy says "Dickie", Dad says "Dickie", Dickie says "Mommy", Dickie says "Daddy".

Additional Activities:

Playing games, child responds to "What does _____ do?"

Daddy works; Billy goes to school, or "Where is _____?" Child responds, "Daddy's at work."

Objective #5:

Additional Activities (continued)

Spontaneously initiating identification regarding activity or relationship, i.e., "Grandma's coming."

---

Category: Family

Objective #6:

To recognize and specifically identify with receptive and expressive language whether each family member is a boy, girl, man, or woman

Context:

Peabody Language Development Kit; Song: "Clean-O" from record "Songs to Grow On," Nursery Days, Woody Guthrie, Folkways Records and Service Corp., N.Y.C., 1950

Activities:

Suggested Context: child with each family member

1. Child correctly categorizes each family member while touching person.
2. Child correctly categorizes family member by touching, i.e., daddy's face, mommy's hair, brother's hands.
3. Child correctly identifies each family member by hearing voice.
4. Sing chants and songs about boys-girls, men-women.

Additional Activities:

Identifying general vocal qualities of men and women, i.e., Peabody Language Development Kit, Level #P, Record #9.

Adding to "Family Book" of people in each family, experience stories, and pictures representing family activities.

Language Development
Format I

Category: The Home--Structure-Rooms

Objective #7:

To recognize and specifically identify receptively/expressively the structure and rooms of home

Context:

The home and its rooms; a small home model (doll house) with furniture

Activities:

1. Accompanied by adult, child moves from room to room. Adult/sibling names room and describes furnishings, odors, texture underfoot, i.e., soft, rough. Child repeats name, i.e., kitchen, bedroom, etc.
2. Child names room in response to touch and location, smells, sounds.
3. Child plays room-name-game, i.e.: Where Mommy cooks _____; Where the stove is _____; Where the cookies are _____, etc.
4. Child names rooms of doll house by touching the structure/furnishings.
5. Child verbally initiates identity of home organization, i.e., "Is daddy in the garage?" "Baby is upstairs." "Mommy's in the kitchen."

Additional Activities:

Reading stories (about families), i.e., "Three Bears" (Use for reinforcement).

Playing "house" with the family of dolls in the doll house.

Discussion of parent roles, i.e., the things that mother and father each do for the family.

---

Category: Home Furnishings

Objective #8:

To recognize and specifically identify (receptively and expressively) all major furnishings in the home and the usual purpose and location of each

Objective #8 (continued)

Context:

The furnishings of child's own home; a housekeeping area set up in a classroom with miniature furnishings; doll house which contains one of each major room and all appropriate doll house furniture; items of sturdy quality

Activities:

1. Child repeats the names of all major home furnishings while touching them.
2. Child names home furnishing item when touching it.
3. Child names all pieces of toy furniture when touching.
4. Child finds home furniture item and names it when touching it.
5. Child names home furnishing item in housekeeping area.
6. Child places hand in box containing toy furnishings and finds and names item on teacher request (finds a chair/table/bed, etc.).

Additional Activities:

1. Removing child furniture from playhouse.
2. Comparing size of each piece with similar adult furniture.
3. Discussing use of each piece of furniture and what room it goes in.
4. Returning the furniture to the correct room in the doll house.

---

Objective #9:

To recognize and specifically identify the function of major household furnishing items

Context:

Home furnishings; miniature size furnishings set up in a housekeeping area in classroom, doll house size furnishings of sturdy quality

Activities:

1. Child carries out appropriate activity upon request. (Sit on the chair; put the cup on the table; go to bed; put your sock in the drawer; open the refrigerator, etc.)
2. Child names activity while carrying it out. (I sit on the chair; I sleep in bed; I eat at the table, etc.)

Objective #9:

Activities (continued)

3. Child names function when asked or completes sentence to identify function. (What do you do in bed?; When I go to bed, I _____.)

Additional Activities:

Examination of a model kitchen or school kitchen and the use of each appliance, including a demonstration.

Cooking simple foods.

Identifying foods by smell and taste.

Identify rooms by olfactory, tactual, auditory,and visual clues, i.e., lighting.

---

Category: Food

Objective #10:

To recognize and specifically identify (receptively and expressively) all common foods

Context:

All common foods: breads, dairy, fruits, meat, vegetables in a variety of forms

Activities:

1. Child repeats name of food being eaten.
2. Child identifies food by touch, by smell: "Find the bread," "Find the apple/orange/banana, etc."
3. Child identifies and names food when it is presented.
4. Child requests food when given choice, i.e., "What do you want for lunch?"
5. Child engages in game setting--names food when given a clue, "Butter is good on _____," "We drink it _____."
6. Child initiates verbal identification by asking for or identifying common foods.

Objective #10 (continued)

Additional Activities:

Taking field trips to the grocery store, bakery, ice cream parlor, produce garden.

---

Category: Expression of Needs-Wants

Objective #11:

To recognize and specifically identify and verbalize all immediate needs and wants

Context:

Any situation in which child is present

Activities:

1. Child repeats after teacher words to express needs/wants: hungry/thirsty, cold/hot, play, go out, come in, etc.
2. Child expresses need/want with one word request, i.e., "bread," then repeats after teacher, "I want bread."
3. Child expresses need/want while carrying out activity, i.e., "I want ball. I have ball," "I want juice. I drink juice," etc.
4. Child expresses preference when given alternatives, i.e., "Would you like to hear Red Hen or The Three Pigs? Do you want potato chips or Jello?"

Additional Activities:

Encouraging children to taste all foods at lunch, to name the ones they like best, and to ask for more.

(Decision making is enhanced by each child selecting toys at playtime, stories, songs, etc.)

---

Category: Expanded Social Contacts

Objective #12:

To recognize and specifically identify (receptively/expressively) all nonfamily persons in the child's immediate/daily environment in school and in neighborhood

Objective #12 (continued)

Context:

All persons (children and adults) with whom child has daily/frequent contact, i.e., in school, in neighborhood

Activities:

1. Child repeats names of teachers, classmates, siblings' friends who frequent home, children and adults in immediate neighborhood, name of doctor, dentist, etc.
2. Child recognizes voice of child/adult and verbalizes name of each.
3. Child recognizes voice and greets child/adult: "Hello _____," "Hi _____," "Good morning _____," "Goodby _____."

Additional Activities:

Singing of group (Tune of "Bingo") "There is a boy in school today and _____ is his name-o ___, ___, ___, ___, ___, ___, and _____ is his name-o."

This is sung to each child in the circle.

---

Category: Animals

Objective #13:

To recognize and specifically identify (receptively/expressively) all common domestic and some circus/zoo animals

Context:

Live domestic animals; rubber domestic/zoo animals as from Creative Playthings (must be large enough to facilitate identification and truly represent the real animal)

Records: Peabody Language Development Kits, Level P, Record #5
"Muffin in the Country" and "Muffin in the City"

Objective #13 (continued)

Activities:

1. Child repeats name of common domestic animal while touching. Teacher introduces animal (dog/cat) which is amenable to petting and children. Teacher holds child, holds child's hand to feed/pat/pet the dog/cat while verbalizing word.
2. Child imitates animal sound (bark/mew) as initiated by teacher on hearing dog bark, cat mew, etc.
3. Child imitates animal sound on request, "What does the dog/cat say, cow say?", etc.
4. Child repeats after teacher name of toy animal while holding/touching toy.
5. Child identifies animal sound on cassette recording and names animal.

Additional Activities:

Identifying animal sounds on records from Peabody Language Development Kits.

Visiting a farm.

Welcoming a pet "visitor" one morning each week.

Caring for a pet pen containing a live animal, i.e., puppy, kitten, rabbit, which each child can touch or hold often.

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Category: Size

Objective #14:

To recognize and specifically identify receptively/expressively gross size differences: concepts of big-little

Context:

Blocks, balls, clothing articles, dishes (real and toy size), etc.

"Songs to Grow On," Vol. 1, Nursery Days, Woody Guthrie, Folkways Records and Service Corporation, New York, 1950

Objective #14 (continued)

Activities:

1. Child repeats after teacher "big _____"/"little _____" while holding/touching article.
2. Child touches two sizes of same article; identifies big one, little one.
3. Child creates big/little with own body: big by stretching arms high above head, little by squatting down to floor, while verbalizing concept with appropriate word.
4. Child participates in finger plays/songs utilizing concepts of big/little, i.e., big steps, little steps, big circle, little circle, etc.

Additional Activities:

Dancing to song: "Dance Around".

Comparing big and little furniture, i.e., toy piano and classroom piano.

Category: Number

Objective #15:

To recognize and specifically identify the concepts of one-two-three

Context:

Any items readily available at all times, i.e., toys, food, counting blocks, etc.

Activities:

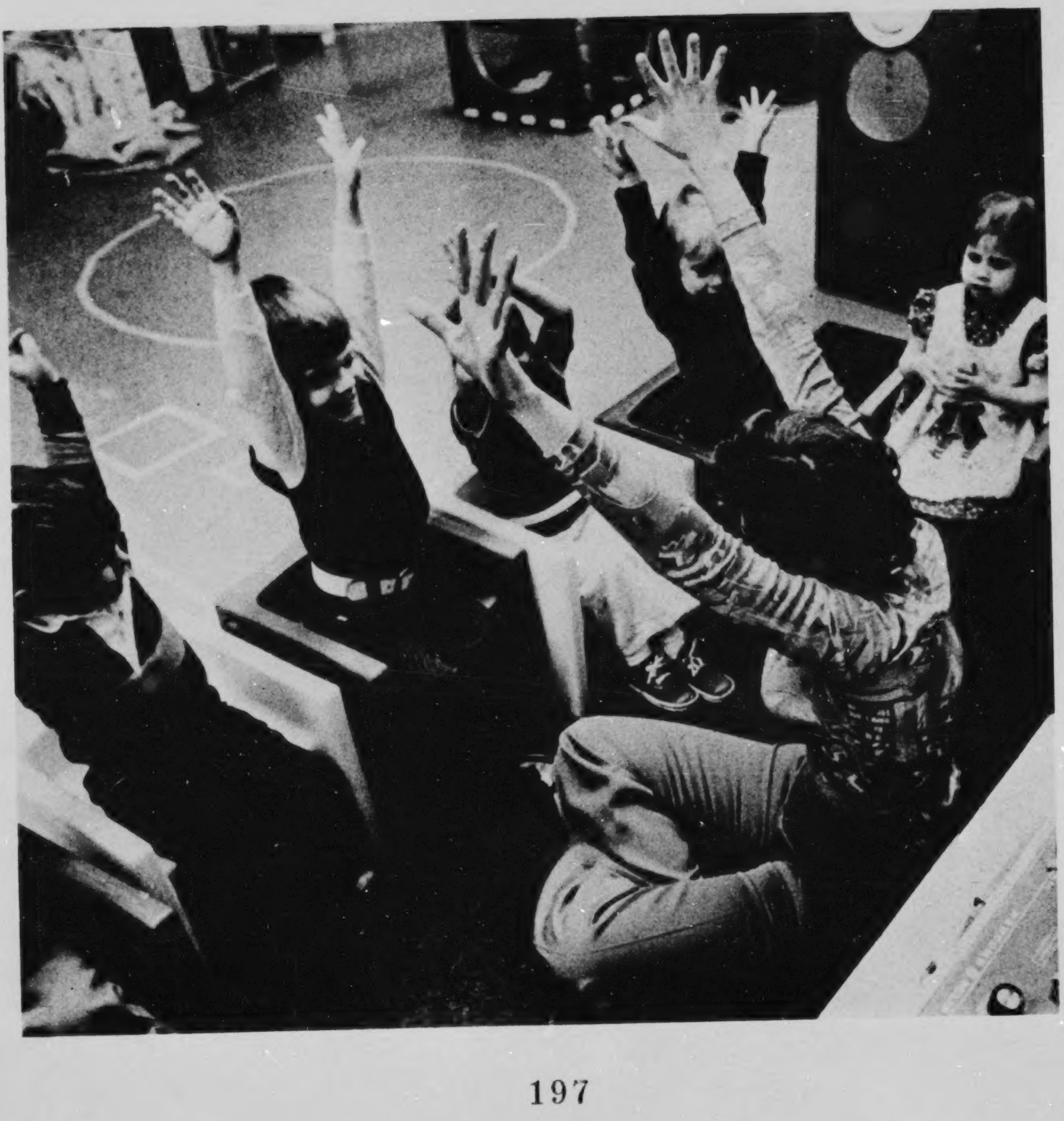
1. Child identifies and verbally articulates one-to-one correspondence, i.e., one cookie/cracker for each child, one cup on each saucer, take one step, make one clap, etc.
2. Child identifies and verbally articulates the concept of two units, i.e., counts two of any set of articles, takes two steps, claps two times, etc.
3. Child identifies and verbally articulates the concept of three units, touching and counting: carrot sticks to eat, socks to put in drawer, cars to play with, counting blocks, children at school, etc.

Objective #15 (continued)

Additional Activities:

Learning to count coins.

(Because children may shop at stores, counting pennies to five may be introduced.)



Name ____________________

Age _____ years _____ months

Date of Assessment ________

Language Development
RECEPTIVE LANGUAGE
Format II

UNDERSTANDING FUNCTIONAL RELATIONSHIPS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Tactual and Physical Awareness<br>1. To display understanding by response to verbal identification of common objects | | | |
| | Physical and Self Awareness<br>2. To display understanding by response to one-word or multi-word sentences pertaining to self concept, expressions of needs and wants, etc. | | | |
| | Nominative Self and Social Awareness<br>3. To display understanding by response to verbal identification of meaningful persons | | | |
| | Affective Self and Social Awareness<br>4. To display understanding by response to vocabulary pertaining to interpersonal affect | | | |
| | Effective Self and Social Awareness<br>5. To display understanding by response to verbal commands | | | |
| | Spatial, Temporal, and Thermal Awareness<br>6. To display understanding by response to vocabulary pertaining to space, direction, time, and temperature | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Language Development
RECEPTIVE LANGUAGE
Format II

Objective #1:

To display understanding by overt response to verbal identification of common objects

Context:

Foods, eating utensils, toys, furniture and equipment, child's own body parts, and personal clothing

Activities:

1. Experiential: Using consistent language (from classroom vocabulary list), staff carefully labels each item relevant to tactual and physical awareness as that item is used by the child in a given activity. Labels are read by staff each time item is encountered by child.
2. Cognitive: Teacher places a series of unrelated objects in a container. Each first is manipulated and identified. Child must retrieve given object via tactual identification and auditory cue.

Additional Activities:

Daily observations are recorded of child's overt response to 101 individual common nouns (objects) verbalized by staff in following situations:

Removing/putting on wraps/clothing ("take off your coat," "this is your coat," "hang up your coat," gives child coat to hold; helps child hang coat, saying "coat"; child hangs coat).

Using bathroom; washing self; eating; using classroom equipment; placing (and retrieving) objects on command in bag, box, or other container.

---

Objective #2:

To display an understanding by response to one-word or multi-word sentences pertaining to expressions of needs and wants, etc.

Context:

Variety of foods, toys, equipment, child's body and bodily needs

Objective #2 (continued)

Activities:

1. Staff accompanies activities related to child's body movements, child's self perception, and child's expressions of needs and wants with appropriate and consistent language identification.
2. Staff gives language cues pertaining to child's needs, i.e., "go bathroom," "hungry," coincident with and subsequent to the activity.
3. Activities and feelings related to the self are recalled via verbal cues (subsequent to the time frame in which the activity or feeling occurred).

Additional Activities:

Recording of daily observations of child's response to 72 vocabulary words (language cues) uttered prior to, coincident with, and subsequent to self-involved activities of child, i.e., "go bathroom," "clap hands," "jump," "stand up," "hungry," "tired," "more," "done," "yes," "no," etc.

Objective #3:

To display understanding by response to verbal identification of meaningful persons

Context:

Actual persons (staff, other students, related families)

Activities:

Staff carefully and consistently identifies (verbalizes appropriate names) all persons with whom child has direct interpersonal experience and/or shares time/space within school setting.

Additional Activities:

Recording daily observations of child's response to 18 stimulus words (names) taken from classroom vocabulary list, i.e., names of persons with whom he has contact or whose presence he expects immediately.

Objective #4:

To display understanding by response to staff-produced vocabulary pertaining to interpersonal affect

Context:

Situations, i.e., greetings, departures, requests, verbal rewards, etc., necessitating specific vocabulary

Activities:

Using situational cues, staff utilizes model vocabulary (from classroom vocabulary list), specific finger plays, songs, stories that promote interpersonal affect.

Additional Activities:

Recording of daily observations of child's response to 18 stimulus words/phrases taken from classroom vocabulary list: staff verbalizations of greetings, departures, interpersonal feelings and gestures, praise (reward), cooperation, politeness, etc.

---

Objective #5:

To display understanding by response to verbal commands

Context:

Various toys, equipment, and people, which lend themselves to specific commands to the child

Activities:

Staff verbalizes commands to child appropriate to given situation, i.e., "Turn on water," "Open door," "Get coat," "Come," "Throw ball," "Sit down," etc.

Objective #5 (continued)

Additional Activities:

Recording of daily observations of child's ability to perform commands as directed (based upon 33 commands from classroom vocabulary list).

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Objective #6:

To display understanding by response to words pertaining to space, direction, time, and temperature

Context:

Variety of foods, toys, equipment, rooms, and people

Activities:

With consistency and in coincidence with cues in the immediate setting, staff verbally identifies space, direction, time, and temperature for child. Concepts are reinforced tactually and haptically. Examples are: "Time to eat," "Time to nap," "Ice is cold." (Teacher provides immediate experience subsequent to cue.)

Additional Activities:

Recording of daily observations of child's response to staff verbalizations, i.e., "Time to dance," "Time to go home," "Radiator hot," "Bed is soft," "Other room," etc. (based upon 33 words/phrases from classroom vocabulary list).

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Language Development
IMITATIVE LANGUAGE
Format II

MOTOR SPEECH POTENTIAL

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Tactual and Physical Awareness<br>1. To display motor speech by imitating verbal identification of common objects | | | |
| | Physical and Self Awareness<br>2. To display motor speech by imitating one-word or multi-word sentences pertaining to self concept, expressions of needs and wants, etc. | | | |
| | Nominative Self and Social Awareness<br>3. To display motor speech by imitating verbal identification of meaningful persons, animals | | | |
| | Affective Self and Social Awareness<br>4. To display motor speech by imitating vocabulary pertaining to interpersonal affect | | | |
| | Effective Self and Social Awareness<br>5. To display motor speech by imitating verbal commands | | | |
| | Spatial, Temporal, and Thermal Awareness<br>6. To display motor speech by imitating vocabulary pertaining to space, direction, time, and temperature | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Language Development
IMITATIVE LANGUAGE
Format II

Objective #1:

To display motor speech by imitating verbal identification of common objects

Context:

Foods, eating utensils, toys, furniture, equipment, and child's own body parts and personal clothing

Activities:

Staff labels each item relative to tactual and physical awareness as that item is used by child. (Directed activities should be experientially based and should encourage imitation to facilitate cognitive development.)

Additional Activities:

Recording daily observations of child's oral imitation of 101 common nouns verbalized by staff (and taken from classroom vocabulary list). These nouns are focal in the following situations: removing wraps, bathroom, washing self, eating, using classroom equipment, placing objects into and out of a given container.

---

Objective #2:

To display motor speech by imitating one-word or multi-word sentences pertaining to self concept, expressions of needs and wants, etc.

Context:

Variety of foods, toys, equipment, child's body, and body needs

Activities:

Staff identifies activities related to child's body activity, child's self perception, and child's needs and wants, e.g., go bathroom, hungry. (Verbal models are concretized by kinesthetic and haptic cues when possible.)

Objective #2 (continued)

Additional Activities:

Recording daily observations of child's imitation of 72 vocabulary words verbalized by staff (taken from classroom vocabulary list). This may be spoken just prior to (in anticipation of), coincident with, or subsequent to child's self-involved activities, i.e., "clap hands," "jump" "stand-up," "tired," "more," "done," "yes," "no," etc.

---

Objective #3:

To display motor speech by imitating verbal identification of meaningful persons, animals

Context:

Actual persons (staff, other students, related families), animals

Activities:

Staff carefully and consistently offers verbal model (label) for all persons with whom child has direct interpersonal experience and/or shares time/space within school setting. Models are additionally concretized by kinesthetic and haptic cues where possible.

Additional Activities:

Recording daily observations of child's oral imitation of 18 stimulus words (names) taken from classroom vocabulary list:

1. Staff-verbalized label coincident with the appearance of specific persons within the environment.
2. Staff-verbalized name or identification following the appearance and/or disappearance of particular persons.
3. Staff-verbalized label of meaningful persons in anticipation of their appearance.

---

Objective #4:

To display motor speech by imitating vocabulary pertaining to interpersonal affect

Context:

Situations, i.e., greetings, departures, requests which necessitate using a specific vocabulary

Activities:

Staff uses model vocabulary for imitation by child; kinesthetic and haptic cues are utilized, i.e., giving hug, "Good morning, good morning. How are you?"

Additional Activities:

Recording daily observations of child's oral imitation of 18 stimulus words/phrases taken from classroom vocabulary list, i.e., greetings, departures, interpersonal feelings and gestures, praise (reward), cooperation, politeness.

Objective #5:

To display motor speech by imitating verbal commands

Context:

Various toys, equipment, people which lend themselves to specific commands (to child) commensurate with developmental skills, e.g., ball, doll, block

Activities:

Staff verbalizes commands which may or may not be orally imitated by the child but which are appropriate to a given situation, e.g., "turn on water," "open door," "get coat," "come," "throw ball," "sit down," etc.

Additional Activities:

Recording daily observations of child's imitation of commands using 33 command words/phrases (taken from classroom vocabulary list).

Objective #6:

To display motor speech by imitating vocabulary pertaining to space, direction, time, and temperature

Context:

Variety of foods, toys, equipment, rooms, and people

Activities:

Staff initiates and child repeats verbal identification of space, direction, time, and place, and auditory cues are employed in this effort to facilitate imitative speech and to reinforce concepts. Examples: "place for coat," "put the ball up on the shelf," "time for lunch," "stove is hot."

Additional Activities:

Recording daily observations of child's imitation of 23 stimulus words/phrases taken from the classroom vocabulary list, i.e., "time to eat," "time to go home," "ice is cold."

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Language Development
EXPRESSIVE LANGUAGE
Format II

CHILD-INITIATED LANGUAGE WITHOUT IMMEDIATELY PRECEDING STIMULUS MODEL

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Tactual and Physical Awareness<br>1. To display expressive language by verbally identifying common objects | | | |
| | Physical and Self Awareness<br>2. To display expressive language by verbalizing one-word and multi-word sentences pertaining to self concept, expressions of needs and wants, etc. | | | |
| | Nominative Self and Social Awareness<br>3. To display expressive language by verbally identifying meaningful persons | | | |
| | Affective Self and Social Awareness<br>4. To display expressive language by verbalizing interpersonal affect | | | |
| | Effective Self and Social Awareness<br>5. To display expressive language by verbalizing commands | | | |
| | Spatial, Temporal, and Thermal Awareness<br>6. To display expressive language by verbalizing words related to space, direction, time, and temperature | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To display expressive language by verbally identifying common objects

Context:

Foods, eating utensils, toys, furniture and equipment, child's own body parts and personal clothing

Activities:

1. Staff names objects and items from which child must make a verbal choice as these objects are presented for use.
2. Staff presents item tactually and/or olfactorily, (but nonverbally). Child must verbally identify, e.g., "What is this?" or "This is a _____."
3. Additional items are offered when child asks for that item on his own initiative.

Additional Activities:

Recording daily observations of child's verbalizations of 41 vocabulary items. These are from classroom list and are focal words in the following activities: removing/putting on wraps, utilizing bathroom, washing self, eating/feeding self, using classroom equipment, placing (or retrieving) objects in container.

---

Objective #2:

To display expressive language in one-word and multi-word sentences pertaining to self concept, expressions of needs and wants, etc.

Context:

Variety of foods, toys, equipment, child's body and bodily needs

Activities:

Staff verbalizes situational choices to be made by child, who then must verbalize his response (words taken from classroom vocabulary list). Activities will be continued or not according to response, i.e., "Do you want _____ (dessert, milk, some bread, etc.)?"

Objective #2:

Activities (continued)

Physical and psychological needs will (or will not) be met. "Do you want to go ____ (potty; to the bathroom)?" "Do you want some water?" "Will you give me a hug?"

Additional Activities:

Recording daily observations of child's ability to verbally communicate 1) his involvement in a given object or activity, 2) additional needs and wants as these are self perceived. Items are those words (20) from the classroom vocabulary list specific to this self awareness category.

Objective #3:

To display expressive language by verbally identifying persons

Context:

Actual persons (staff, peers, family members, others)

Activities:

1. A verbal accounting (spoken or sung) is made almost daily regarding persons present or not present at school. Those present receive a greeting; those who should be present but are absent are mentioned.
2. Staff identifies other persons entering (during any class period).

Additional Activities:

Recording daily observations of child's ability to name meaningful persons in the environment as they are present and to name individuals at home.

Objective #4

To display expressive language by verbalizing interpersonal affect

Objective #4 (continued)

Context:

Situations, i.e., greetings, departures, requests, verbal rewards, etc., necessitating utilization of specific vocabulary

Activities:

Child initiates daily greetings, routine expressions of feelings (descriptions, i.e., "happy," "sad," "good," etc.) about an activity or situation. Physical and verbal rewards (praise) ranging from bland cereal pieces at earlier developmental levels to affective verbal praise facilitate this.

Additional Activities:

Recording daily observations of child's ability to initiate vocabulary specific to routines, activities, and objects which include the following situations: greetings, departures, interpersonal feelings and gestures, praise, cooperation, politeness, etc. (Eight words/phrases from the classroom vocabulary list are designated for this activity.)

Objective #5:

To display expressive language by verbalizing commands

Context:

Various toys, equipment, and people which lend themselves to specific verbal commands

Activities:

Child gives verbal command, i.e., "Turn on water," "Open door," "Sit down," "Go," "Come," "Help," etc.

Additional Activities:

Recording daily observations of child's ability to initiate verbal commands from the classroom vocabulary list.

Objective #6:

To display expressive language by verbalizing words related to space, direction, time, and temperature

Context:

Variety of foods, toys, equipment, rooms, and people

Activities:

1. Child routinely identifies space, direction, time (for introduction or cessation of a given activity), and temperature, i.e., "Here is my _____ (place, chair, locker)." "Put the trike in the corner, the ball on the shelf." "The soup is hot. Ice cream is cold." "Time to eat. Time to go home."
2. Concepts of space and direction routinely are reinforced by staff verbally, tactually, haptically, i.e., cup is "full" or "empty," "walk around circle," etc.

Additional Activities:

Recording daily observations of child's ability to initiate words regarding this category (from the classroom vocabulary).

Name ____________________

Age _____ years _____ months

Date of Assessment ________

UTILIZING EXPANDED LANGUAGE CONSTRUCTS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Tactual and Physical Awareness<br>1. To display integrated expressive language by verbally giving and/or seeking information regarding common objects | | | |
| | Physical and Self Awareness<br>2. To display integrated expressive language by verbally giving and/or seeking information regarding self concept, expressions of needs, wants, ideas, etc. | | | |
| | Nominative Self and Social Awareness<br>3. To display integrated expressive language by verbally giving and/or seeking information regarding meaningful persons from his environment | | | |
| | Affective Self and Social Awareness<br>4. To display integrated expressive language by verbally giving and/or seeking information regarding interpersonal affect or relations | | | |
| | Effective Self and Social Awareness<br>5. To display integrated expressive language by verbally giving and/or seeking information regarding commands | | | |
| | Spatial, Temporal, and Thermal Awareness<br>6. To display integrated expressive language by verbally giving and/or seeking information regarding space, direction, time, and temperature | | | |
| | Across all Modalities<br>7. To display integrated expressive language by engaging in conversation, alternately assuming roles of both speaker and listener | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Language Development
INTEGRATED EXPRESSIVE LANGUAGE
Format II

## UTILIZING EXPANDED LANGUAGE CONSTRUCTS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Lesson plans for expressive language may be used for this category with the added dimension that the child integrates language and cue. A very simple illustration might be:<br>Receptive: Child is sitting at the table eating. Teacher says, "This is bread. This is good bread."<br>Child takes and eats bread.<br>Imitative: Teacher says, "This is meat." (repeating to encourage response) "What is this, Betty?" Child says, "This is meat."<br>Expressive: Child smells something and says its name, "Applesauce."<br>Integrative Expressive: A tray of food is presented. Child says, "Mmmm, meat, applesauce, beans."<br>While putting on wraps, child says, "This is my coat. This is my hat." | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Language Development
SPECIFIC CONCEPTS AND CONSTRUCTS
Format II

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Specific Prepositions<br>1. To demonstrate understanding by carrying out directions, i.e., "Put the box under the table," and by correct phrasing of verbal response to specific prepositions (in context) | | | |
| | Personal Pronouns<br>2. To demonstrate understanding by appropriate verbal response to personal pronouns (in context) | | | |
| | Relative Pronouns<br>3. To display understanding by appropriate verbal response to relative pronouns (designator/locator words in context) | | | |
| | Verbal Number Experiences/Relationships<br>4. To display understanding by appropriate verbal response to verbal number experiences/relationships | | | |
| | Relative Size and Height<br>5. To display understanding by appropriate verbal response regarding relative size and height concepts (concrete) | | | |
| | Relative Size and Weight<br>6. To display understanding by using appropriate verbal response regarding relative size and weight (abstract) | | | |
| | Similarities and Differences<br>7. To display specific understanding by appropriate verbal response regarding similarities and differences (concrete) | | | |

Based on established criteria:
+ = correct response
- incorrect response
o = no response

Language Development
SPECIFIC CONCEPTS AND CONSTRUCTS
Format II

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Expanded Vocabulary<br>8. To demonstrate an expanded vocabulary by appropriate verbal response and by attending to familiar and unfamiliar verbal identification, description, and explanation of objects, people, experiences, and events | | | |
| | Classification and Organization of the Environment<br>9. To display understanding of classification and organization by appropriate verbal response, i.e., using the family (including various members, relationships, sexes) | | | |
| | Home and Home Furnishings<br>10. To display understanding of home and home furnishings by appropriate verbal response to categorization of the concept home, including various rooms, purposes, furnishings, etc. | | | |
| | Food<br>11. To display understanding by correct verbal categorization of food (including varieties, characteristics, purpose, etc.) | | | |
| | Clothing<br>12. To demonstrate understanding by correct verbal response to categorization of clothing (including kinds, purposes, etc.) | | | |
| | Body and Body Parts<br>13. To display understanding of body and body parts by correct verbal response to identification and categorization of the body and its parts | | | |
| | Animals<br>14. To display understanding by correct verbal response to categorization of animals, including varieties, characteristics, and sounds that they make | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Category: Specific Prepositions

Objective #1:

To demonstrate understanding by carrying out directions, i.e., "Put the book under the table," and by correct phrasing of verbal response to specific prepositions (in context)

Context:

Puppets, large box, variety of small objects, toys, books, pockets, etc.

Activities:

1. Child chooses correct preposition from those offered by teacher regarding a given situation. ("The car is on/in/under the box" . . . "Is the can in the box?")
2. Child carries out commands and directions of teacher which include specific prepositions. (Put the car on the box." "Sit on the chair." "Put the cup on the plate.")
3. Child identifies (given no choice or model) preposition/prepositional phrase appropriate to an activity or gesture, i.e., "Put milk in cup."

Additional Activities:

Playing games consisting of "finding" items placed inside container in the immediate environment, i.e., ball in the wastebasket.

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Category: Personal Pronouns

Objective #2:

To demonstrate understanding by appropriate verbal response to personal pronouns (in context)

Context:

Variety of toys (including puppets), people

Objective #2 (continued)

Activities:

Stimulus model is given by teacher in certain activities, i.e., introductions, questions and answers, discussions of likes and dislikes, giving and taking of objects ("I take/have a ball, etc. You have a ball." "This is my cap." "Want my coat." "I like my dog.").

Additional Activities:

Playing games and activities using target pronouns including "you," "me," "my," "mine," "he," "she," "it."

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Category: Relative Pronouns

Objective #3:

To display understanding by appropriate verbal response to relative pronouns (designator/locator words in context)

Context:

Variety of materials/toys, equipment, including Peabody Language Development Kit, puppets, people

Activities:

1. Teacher models for child's verbal response in given activities: following directions, locating objects, etc., i.e.,

   Teacher: "Is your ball in the box?"
   C : "My ball is in the box."

   Teacher: "Will you put this book on the shelf?"
   C : "I put this/that book on the shelf."

   Teacher: "Where are your _____?"
   C : "Here are my _____."

   Teacher: "Whose _____ are these?"
   C : "These/those are my _____."

Objective #3 (continued)

Additional Activities:

Playing games and reading stories using "that," "these," "there," etc.

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Category: Verbal Number Experiences/Relationships

Objective #4:

To display understanding by appropriate verbal response to verbal number experience/relationships

Context:

Variety of toys, equipment including felt board and cutouts, stickers, stories, and songs

Activities:

1. Teacher verbalizes number experiences and child tactually examines object(s) during songs and stories. Visual cues employed wherever possible. One-to-one counting of objects and pictures, "One cookie for _____, one cookie for _____," (until each child has the same number of cookies).
2. Teacher introduces classification and grouping concepts: big/little, none/some, same/different, large/small, heavy/light
3. Teacher introduces comparison concepts: larger/smaller, smallest to largest, heaviest to lightest, empty to full, shortest to tallest/longest.
4. Teacher introduces concept of oneness/twoness/threeness.

Additional Activities:

Playing games in which items are divided, i.e., at snack time.

---

Category: Relative Size and Height

Objective #5:

To display understanding by appropriate verbal response regarding relative size and height concepts (concrete)

Context:

Variety of small and large toys, pictures, stickers and puppets, children and adults (use only objects familiar to children).

Activities:

1. Staff presents visual and tactual cues stressing activities which concretely compare relative size and relative height, e.g., longer/shorter cylinders, taller/shorter, bigger/smaller.
2. Child first points to representation of specific concept and then verbalizes as teacher demonstrates.
3. Child expresses judgments verbally.

Additional Activities:

Arranging materials according to size and verbalizing size relationships.

---

Category: Relative Size and Weight

Objective #6:

To display understanding by using appropriate verbal response regarding relative size and weight (abstract)

Context:

Variety of toys, equipment, people, objects familiar to children, scale

Activities:

Staff discusses weight and size differences. Initially, child discriminates by choosing from among teacher's verbalizations. Ultimately, child is primary

Objective #6:

Activities (continued)

verbalizer of concepts, i.e., Teacher: "Is John taller than Bob?" "This ball is the smallest."

Additional Activities:

Measuring and weighing the children to see who is tallest, heaviest, etc.

---

Category: Similarities and Differences

Objective #7:

To display specific understanding by appropriate verbal response regarding similarities and differences (concrete)

Context:

Variety of toys, equipment, puppets, mannequins, people

Activities:

Staff stresses visual and tactual cues in activities which concretely depict similarities and differences. Activities proceed from teacher as primary verbalizer and child as secondary verbalizer to child as primary verbalizer and teacher as secondary verbalizer providing positive reinforcement.

1. Initially, child points to representation of specific concept after teacher's demonstrations and verbalizations: Teacher: "Find the biggest, etc."
2. Child must make judgments expressed verbally: Child: "This is the smallest box."
3. Child arranges materials according to size. Accompanying verbalizations are self-initiated, i.e., child demonstrates by arranging in order various sized blocks; points and says, "This is the smallest," etc.

Objective #7 (continued)

Additional Activities:

Sorting different objects and people by sexes, and asking: "Why are they different?" "How are they different?"

---

Category: Expanded Vocabulary

Objective #8:

To demonstrate expanded vocabulary by appropriate verbal response and by attending to familiar and unfamiliar verbal identification, description, and explanation of objects, people, experiences, and events

Context:

Variety of toys, pictures, books, Peabody Language Development Kit, flannel board, puppets

Activities:

1. Child listens to: a) verbal accounts by others, b) brief stories.
2. Child indicates comprehension of presented verbalizations by appropriate responses: pleasure/displeasure, amusement/sadness, nodding head, following complex directions, asking meaningful, related questions.

Additional Activities:

Acting out feelings after listening to verbal account of another.
Dramatizing roles from stories.

---

Category: Classification and Organization of the Environment

Objective #9:

To display understanding of classification and organization by appropriate verbal response, i.e., using the family (including various members, relationships, sexes)

Objective #9 (continued)

Context:

Puppets, mannequins, dolls, own family, conversational stories

Activities:

1. Initially, child identifies nonverbally: the family, its members, sexes, roles (arranges materials, points, tactually identifies, etc., as teacher verbally discusses).
2. Child's appropriate verbal response to teacher's questions represents the succeeding activity. Teacher: "Who am I?" Child: "Teacher." Teacher: "What is this?" Child: "Bread."
3. Child responds with appropriate verbal target response to question proposed in conversational stories.
4. Child verbalizes identifying characteristics of specific items and category as a whole, i.e., naming persons whose voices are heard, naming foods on plate.

Additional Activities:

Dramatizing play in housekeeping corner.

---

Category: Home and Home Furnishings

Objective #10:

To display understanding of home and home furnishings by appropriate verbal response to categorization of the concept home, including various rooms, purposes, furnishings

Context:

Doll houses, toy furniture, real furniture, household items

Activities:

1. Initially, child displays (nonverbally) understanding of this concept, the "home," including rooms, purposes, furnishings. Child arranges materials, points, and tactually identifies as teacher/parent verbally discusses,

Objective #10:

Activities (continued)

"Here's the kitchen; smell the good food." "Shall I get you some milk?"

2. Child's response to teacher's questions represents the succeeding activity. "Do you want to go to bed?" "Bed, NO" (when in bedroom).
3. Child responds with appropriate verbal target response to question proposed in conversational stories, i.e., "Where do you sleep?"
4. Child verbalizes identifying characteristics of specific items and the category as a whole, i.e, "My bed is soft."

Additional Activities:

Providing experiences such as assisting with snack time by going to the cabinet for cookies, to the refrigerator for juice, etc.

---

Category: Food

Objective #11:

To display understanding by correct verbal categorization of food, including varieties, characteristics, purpose

Context:

Actual foods, pictures, Peabody Language Development Kit, representations

Activities

1. Initially, child indicates nonverbally an understanding of items within this classification concept, "foods," including varieties, tastes, purposes. Child arranges materials visually and tactually, identifies by odor, tastes, and selects as teacher verbally discusses each food.
2. Child verbalizes identifying characteristics of specific items and each category as a whole.

Objective #11 (continued)

Additional Activities:

Tasting parties in which games of identification and categorization of foods are rewarded.

Category: Clothing

Objective #12:

To demonstrate understanding by correct verbal response to categorization of clothing according to kinds and purposes

Context:

Dolls, doll clothing, Peabody Language Development Kit, mannequins and clothing, child's personal clothing

Activities:

1. Initially, child indicates nonverbally an understanding of items within this classification concept, "clothing," including various kinds, and usage. Child arranges materials tactually and visually, identifies and points to each as teacher discusses it.
2. Child verbalizes identifying characteristics of specific items and each category as a whole.

Additional Activities:

Discussing board cutouts of people and clothing.
Constructing paper people for bulletin board which is changed every day according to specific weather.

Category: Body and Body Parts

Objective #13:

To display understanding of body and body parts by correct verbal response to identification and categorization of body and its parts

Context:

Peabody Language Development Kit, assembly mannequins, child's own body

Activities:

1. Child identifies common body parts, i.e, head, eyes, hair, mouth, nose, arm, hand, tummy, leg. Initially, child indicates nonverbally an understanding of body parts within this classification concept. Child manipulates materials, identifies each part tactually and visually, and points to each as teacher discusses it.
2. Child verbalizes identifying characteristics of specific items and category as a whole.

Additional Activities:

Identifying body parts in musical games.

---

Category: Animals

Objective #14:

To display understanding by correct verbal response to categorization of animals according to varieties, characteristics, sounds that they make

Context:

Stories, (Creative Playthings) rubber animals, real animals

Activities:

1. Initially, child indicates (nonverbally) an understanding of items in this classification concept. Child manipulates materials, identifies each

Objective #14:

Activities (continued)

tactually and/or visually, and points to each animal as teacher discusses it.

2. Child verbalizes identifying characteristics of specific animals and the category as a whole.

Additional Activities:

Sorting play animals according to characteristics (Kenworthy).
Taking field trips to the zoo and to animal farms followed by discussion of the animals seen.

0123456789

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Language Development
TOTAL PROCESS
Format II

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | 1. To use language meaningfully by verbal identification and exploration of environment (people, places, objects) | | | |
| | 2. To use language meaningfully by verbal expressions of personal needs and wants | | | |
| | 3. To use language meaningfully by verbally describing sensorimotor perceptions of activities | | | |
| | 4. To use expanded language concepts by expressing cause-effect relationships | | | |
| | 5. To use expanded language concepts by verbally retelling stories | | | |
| | 6. To use expanded language concepts by verbally describing persons, objects, and events not in the immediate environment | | | |
| | 7. To use expanded language concepts by engaging in verbal absurdities, i.e., developing a sense of semantic and linguistic (incongruity and a concomitant sense of humor) | | | |
| | 8. To use expanded language concepts by verbally linking past and present events | | | |
| | 9. To use expanded language concepts by abstract verbal categorization of events, objects, people, and places | | | |
| | 10. To use expanded language concepts and constructs by participating in conversation, alternating speaker/listener roles, i.e., developing a sense of reciprocity in communication | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Language Development
TOTAL PROCESS
Format II

Objective #1:

To use language meaningfully by verbal identification and exploration of the environment, of people, places and objects

Context:

Variety of people, furniture, equipment, and toys

Activities:

Situations where child himself initiates verbal identification of both the new and the familiar in a natural exploration of the environment: classroom, restroom, playground.

Additional Activities:

Exploration of and orientation to environment enhances pre-mobility skills as awareness of auditory, olfactory and tactual clues develop. Daily trips for a specific purpose are recommended, i.e., going to the lunchroom to buy milk, taking a note to the office.

---

Objective #2:

To use language meaningfully by verbal expressions of personal needs and wants

Context:

Selection based on individual child's needs and wants

Activities:

Teachers record instances of nonstructured verbal expressions of physical and personal-social needs and wants (desires) on index cards and review them daily as opportunities for new expressions are provided.

Additional Activities:

Recording of frequency and use by child of expressions used by staff. (Planning

Objective #2:

Additional Activities (continued)

must be in terms of the next manageable tasks accomplished at each child's developmental level.)

Objective #3:

To use language meaningfully by verbally describing sensorimotor perceptions of activities

Context:

Based on sensorimotor perceptions

Activities:

Teacher provides nonstructured instances clued verbally to express or describe sensorimotor perceptions regarding activities of self and others. These could be expressed in general conversations or specifically during an ongoing activity, i.e., "I run up; I slide down."

Expressions are recorded on index cards.

Additional Activities:

Using simple obstacle course for play activity, discuss with children what they did while going through course, i.e., walking between rungs of stepladder lying on ground. (Vocabulary must be appropriate to child's developmental level and recorded in terms of frequency and spontaneity of use.)

Objective #4

To discern expanded language concepts by expressing cause-effect relationships

Context:

Statements of cause-effect relationships

Objective #4 (continued)

Activities:

Nonstructured verbalizations of cause-effect relationships. These could be expressed in conversation or during ongoing activity, i.e., "Baby hungry, baby cries."

Additional Activities:

Playing teacher-designed cause-effect games consistent with the child's developmental level.

Objective #5:

To demonstrate expanded language concepts by verbally retelling stories

Context:

Stories read aloud, on TV, records, cassettes, story figurines, and real-life accounts

Activities:

1. Children spontaneously relate stories previously heard.
2. Children spontaneously relate real-life happening (previously described elsewhere or by another).

Additional Activities:

Providing opportunities for each child to share news or information about his personal world, i.e., at daily newstime.

Objective #6:

To discern expanded language concepts by verbally describing persons, objects, and events not in immediate environment

Objective #6 (continued)

Context:

Reference to nonpresent stimuli, i.e., persons, objects, events

Activities:

Staff provides opportunities for child to talk about persons or events not in immediate environment, i.e., "I had my hair cut," "I had juice in other room."

Expressions are recorded in daily log.

Additional Activities:

Same as in Objective #5

Objective #7:

To use expanded language concepts by engaging in verbal absurdities, i.e., developing a sense of semantic and linguistic (incongruity and a concomitant sense of humor)

Context:

Verbal stimuli (congruities vs. incongruities), e.g., verbal comment on a snowy day, "It's hot outside." "I think I felt some stones in the snowflakes."

Activities:

Teachers encourage nonstructured playful use of language.

Teacher records examples in daily log.

Additional Activities:

Playing staff-developed games with verbal absurdities which relate to the child's experience.

Objective #8:

To discern expanded language concepts by verbally linking past and present events

Context:

Verbal linking of past-present events

Activities:

Teacher provides opportunity for conversation relating present happening to past event, i.e, group sharing time.

Additional Activities:

Presenting prints (with partially sighted children) that show growing process, i.e., from baby to older child.

Studying the seasons.

Seeing changes in each other during the year by looking at pictures made periodically at school and kept in the class scrapbook (for sighted children).

---

Objective #9:

To demonstrate expanded language concepts by abstract verbal categorization of events, objects, people, and places

Context:

Variety of objects such as foods, toys, equipment, people, animals

Activities:

1. Seeing how vegetables change when cooked.
2. Role playing of animal sounds and actions.

Objective #9 (continued)

Additional Activities:

Field trips to supermarket, zoo, etc.

---

Objective #10:

To demonstrate expanded language concepts and constructs by participating in conversation, alternating speaker/listener roles, i.e., developing sense of reciprocity in communication

Context:

Two or more people to provide opportunity for conversation

Activities:

Teacher provides one-to-one and small-group activities providing stimulation and opportunity for spontaneous reciprocal conversation between staff and children.

Teacher records examples of conversations in daily log.

Additional Activities:

Delivering verbal messages to nearby staff and/or office.

---

# GLOSSARY OF TERMS
## Language Development

action-object construction: a combination of an action word with a word denoting object of that action (e.g., "See car," "Drink milk.")

agent-action construction: a combination of two words consisting of an agent combined with an action word (e.g., "Mommy look," "Doggie run.")

agent-action-object construction: a combination of three words in the same sentence; there is a subject, a verb (action), and direct object (object)

agent-object construction: a two-word construction which communicates a relationship between an agent which acts upon an object (e.g., "Mommy sock," "Doggie bone.")

auditory: pertaining to the sense of hearing

expansion: a process in which parents respond to a child's abbreviated utterances by expanding them into proper sentence form

expressive language: the ability to communicate through speech

haptic: the sense of body contact

holophrase: a single word which may be used to communicate several different messages

imitative language: the ability to "mimic" the motor patterns involved in speaking

integrative expressive language: the ability to generalize language usage from those contexts and concepts specifically taught in the classroom to other similar situations

kernel sentence: a simple, active, declarative sentence on which transformations may be performed

linguistic period: the second of two stages of language development. Prelinguistic vocalizations decrease and the use of words and word combinations increases

morpheme: the smallest meaningful linguistic unit

negative transformation: the alternation of a positive statement into a negative one

olfactory: sense of smell

phoneme: the smallest unit of speech which is distinguishable from another unit of speech

phonetics: one of a group of distinctive sounds that make up the words of a language, i.e., the word cat is distinguished by the initial phoneme /K/

pivot grammar: a controversial and incomplete explanation of early language development in which a pivot word (e.g., see) serves as an anchor point to which several other open words may be tied (e.g., cat, boy) pivot word: a word which is used frequently and which serves as an anchor point to which several other words are tied (e.g., "See Mommy.")

prelinguistic period: the first stages of language development during which true language does not exist; linguistic behaviors are limited to vocalizations such as crying, cooing, and babbling

prosodic: of or having to do with poetic meters

psycholinguistics: the study of language and its development, culturally and individually; draws from psychology, linguistics, and anthropology

receptive language: the ability to comprehend what is spoken

reduction: retaining high-information words and dropping low-information words

surface structure: the arrangement of the constituents or parts of a sentence

syntactic: ordered, arranged together

syntax: pattern or structure of the word order in a sentence or phrase

tactual: pertaining to touch

tag question: question which consists of an affirmative sentence with an accompanying tag word (e.g., "We're playing, huh?")

transformation: in psycholinguistics, the alteration of the surface structure of a sentence, maintaining its same essential meaning

vocabulary inventory: a detailed list of words

wh-question: an early form of question containing a question word (such as where, when, which, what, who, and how); cannot be answered by a "yes" or "no," but requires a more elaborate answer

yes-no question: a form of question that can be answered "yes" or "no"; requires no question word (such as where, when, which, who, what, or how) and may rely on intonation and stress for interpretation (e.g., "That mine?")

Chart 4

## sensorimotor development

affectional
self
socialization
physical
adjustive
peer

## language development and acquisition

| | sensorimotor development | language development and acquisition |
|---|---|---|
| 72 months | | |
| | eye muscles coordinated for fine motor movement | can explain • argues with logic |
| 60 months | | |
| | highly coordinated in both large and small motor skills: holds crayons, brushes, makes fine marks, uses detail • ties shoes • skips, hops, balances, catches ball | uses mature articulation • increases vocabulary and meaning for words • uses metaphors • language usage approaches adult level • can relate a series of sentences meaningfully |
| 48 months | | |
| | competent in running errands and doing chores • explores and moves about neighborhood • hits, kicks, throws • tests own limits: "I can do it." | average sentence 5.3 words • uses complete sentences • masters inflection • uses relational words • masters grammar rules and uses adult grammar • vocabulary of 2500+ words |
| 36 months | | |
| | feeds self, uses fork • toilet trained, sleeps through the night without wetting • goes down steps one at a time • uses scissors, crayons | uses average sentence of 4 words • rapid proficiency in articulation • vocabulary 100-1000 words • begins using adult grammar • uses intelligent speech |
| 24 months | | |
| | runs well, goes up stairs one at a time • looks at picture books • selects foods and eats independently • watches TV | uses 2-5 word sentences • noun vocabulary large • verbs prepositions, articles minimal • 1/3 of sounds clearly articulated • vocabulary of 50-300 words • uses "child grammar" more than imitation of adult • understands adult grammar |
| **18 months** | walks, runs • imitates • plays with toys • cooperates in dressing/undressing, feeds self • interested in toiletting | 3-50 single words • complex babbling • understands commands • uses 2-3 word telegraphic sentences • explains and describes (more, good, here) • uses basic cognitive relationships (i.e. actor/objects) • names things |
| 12 months | | |
| | sits well alone, stands, walks • finger-feeds self • plays with spoon, holds cup • plays games | distinctive intonation patterns • utters signal emotion • imitates sound • emerging words • saying single words • 18 phoneme repertoire |
| **8 months** | rolls over, crawls • get first teeth | |
| **6 months** | sits with support, balances • looks about, smiles, laughs, recognizes significant care-givers • holds things | cooing changes to babbling • one syllable (ma/da/dee) • produces all vowels, most consonants • 12 phoneme repertoire |
| **1 month** | visually follows objects • communicates by crying, gurgling, cooing • startled by noise • smiles | |
| **20 weeks** | | vowel sounds mingled with consonants |
| **12 weeks** | | cooing, gurgling • 7 phonemes • vowel/consonant ratio = 5:1 |
| | distinguishes light from dark, hears sound, sucks, unaware of world | |

# intervention strategies

## Early Sensory Stimulation

The problem of establishing communication and affective relationships with blind infants and with many profoundly damaged children is perplexing and often overwhelming for parents. When children neither respond to auditory or visual stimuli nor show evidence of awareness that they have been picked up and their needs attended, there is little to encourage parents to develop positive attitudes toward them and their development.

Presentation of both pleasant and unpleasant sensory stimuli in order to elicit voluntary responses should begin as soon as possible. Stroking and patting as the child is given an unhurried warm bath followed by gentle rubbing with cream or baby oil are excellent when the caregiver speaks or sings softly and warmly during the experience.

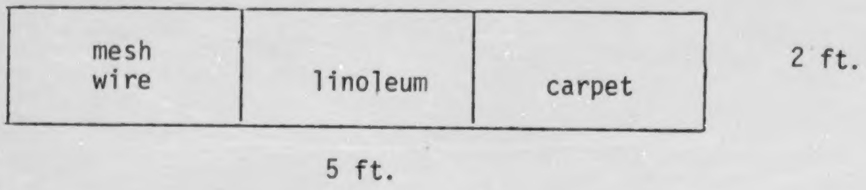
Bringing a variety of textures into contact with the baby's skin may evoke the basic response of moving away from or toward the stimuli. Parents should be instructed to start a collection of rough and soft materials, i.e., soft toothbrush, a hairbrush, sandpaper (fine). When children are dry and comfortable and are being held, they should be stroked gently with each texture. The activity should stop when the children respond. The same thing can be done with soft textures.

As soon as children can be placed on the floor to allow freedom of movement (kicking, crawling), they should experience the feel of carpet, linoleum, grass, wood, and any other available surfaces. Haptic awareness is enhanced if the children's clothes are removed to allow maximum body stimulation.

In like manner, pleasant and unpleasant olfactory and auditory stimuli should be furnished consistently until the children respond appropriately.

Teachers in a preschool setting can provide many opportunities for sensory stimulation including texture boards for daily use. Several should be constructed using three highly differing textures on each, as shown.

One-inch plyboard, two feet by five feet



Children should remove shoes and long pants before walking, sitting, or crawling on the boards.

### THE IMPORTANCE OF EARLY STIMULATION AND MOTION

Human infants are stimulus seekers and begin to seek response from their environment during the early hours after birth. Characteristically, they will seek the novel and different as they elicit response from others. Thus, the importance of a responsive environment cannot be overemphasized, for only in this context can infants begin to realize that they can affect their world.

Parents must be helped to realize that their infants are perceptive, have learning abilities, and that they need feedback and stimulation from the beginning. By four weeks of age, they must recognize something familiar about the mother who has fed them. If she is silent during feeding and perhaps has worn a mask, there is a good possibility that they will develop feeding problems. Affective handling including gently holding, carrying, patting, and rocking, as well as a warm, soothing voice are crucial to maintaining a positive feeling tone in the parent-infant relationship.

If the child has vision, various patterned stimuli must be kept within a focal range of six to eight inches. Mobiles should be changed often and can be made from many things around the home. Large pictures of human faces should be within close range. In some nurseries for premature babies, these are glued inside the isolettes or cribs.

## KINESTHETIC/VESTIBULAR STIMULATION

Kinesthesia is defined as the sense by which muscular motion, weight, and positions are perceived. The vestibular apparatus is that sensory organ (in the ear) that detects sensations concerned with equilibrium. Kinesthetic/vestibular stimulation is recognized to be extremely important from birth through early childhood and remains so through successive stages of growth to adulthood.

Mason (1968) attributed the precocity of African one-year-olds to the constant holding, carrying, and rocking that they experience from birth. Pederson (1973) noted that vestibular stimulation may foster mother-infant attachment because it provides the mother with a powerful technique for controlling the baby's crying.

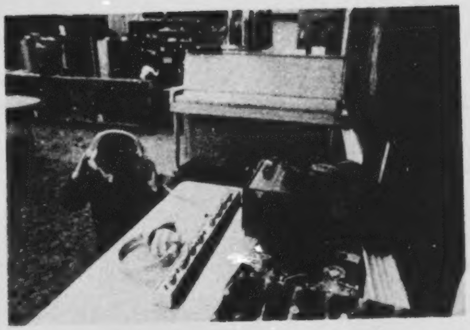
The vestibular system is one of the earliest to be myelinated and it is mature at birth. For this reason, the premature baby may be more receptive to stimulation in this area than in any other modality (Pederson, 1973). It is through stimulation of this system that children first develop increased awareness of the boundaries of their own bodies and of the external environment. Vestibular importance has been demonstrated by the use of water mattresses in isolettes in some nurseries where the schedule requires that each baby be rocked one hour of every three (the hour just before feeding). Babies who received this stimulation were more alert and had better feeding experiences. They also displayed more response to motor, visual, and auditory stimulation (Pederson, 1973).

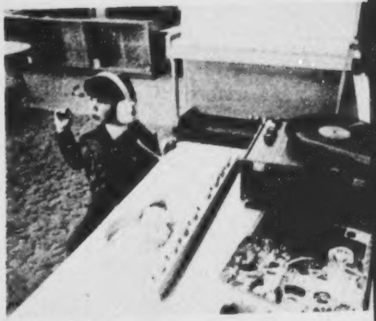
Ayres (1972) regarded vestibular stimulation as one of the most effective methods of treating sensory-integrative dysfunction. It makes children aware of the pull of gravity and of their relationship to the earth. The experience of motion is felt through increased muscle tone, and extraocular muscle development is facilitated. Kantner (1976) confirmed the importance of vestibular input for (1) modulation of different types of afferent stimulation, i.e., tactile and proprioceptive, (2) for increasing visual attentiveness and orientation, and (3) for increasing motor and exploratory ability.

From the earliest rocking and carrying of the infant to later movement experiences in early education programs, vestibular stimulation can be provided in many ways and in a variety of positions. In early intervention programs, a hammock with both ends fastened to a single hook is commonly used to spin or swing a child. A sitting position is best for a child with cerebral palsy, because the hammock keeps the child's head forward and allows the hands to come together at midline. Horizontal positions may also be used (Kiss, 1976).

It is important that any program of vestibular stimulation for children with brain damage be planned and implemented in consultation with a pediatrician, or a physical therapist working under the direction of a physician. Ornitz (1970) reported findings indicating abnormal response to vestibular stimulation in schizophrenic and autistic children. He noted that the motion may induce perceptual distortion and hallucinatory experiences. Improved motor performance was noted in infants with Down's Syndrome and in normal infants (Kantner, et al.).

As children develop, they will move from mother's arms to rocking furniture, i.e., hammocks and rocking chairs, to swings, merry-go-rounds, and to increasingly sophisticated motion experiences when they enter the physical education program in school.





Name ____________________

Age _____years _____months

Date of Assessment _______

Sensory/Perceptual Development
AUDITORY DISCRIMINATION

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| Birth to 2 yrs. | 1. To demonstrate the ability to perceive sound from a given direction by indicating an awareness of the origin of the sound<br>2. To demonstrate ear-hand coordination by grasping a sounding object<br>3. To demonstrate the ability to seek a sound source by moving toward a sounding object<br>4. To demonstrate the ability to imitate by repeating patterned sounds<br>5. To demonstrate the ability to imitate vocalized sound by responding to an approximation of the sound<br>6. To demonstrate the ability to say the appropriate name of an object | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate the ability to perceive sound from a given direction by indicating an awareness of the origin of the sound

Suggested Materials:

Small bell, blocks, beads, musical toy, record player, radio

Activities:

1. Teacher sounds an object (rings small bell, clicks two blocks, etc.) near children: to the left, right, and in front, varying the direction of sound.
2. Children sit in a circle and close their eyes. The teacher touches one child who makes an animal sound. Children point in the direction of the sound.

---

Objective #2:

To demonstrate ear-hand coordination by grasping a sounding object

Suggested Materials:

Small bell, blocks, beads, musical toy

Activities:

1. Teacher sounds an object (rings small bell, clicks two blocks, etc.) near the child: to the left, right, and in front, varying the direction of sound.
2. The child will:
    a. Reach for object;
    b. Locate object with hands in searching fashion or with eyes; and
    c. Grasp object.

---

Objective #3:

To demonstrate the ability to seek a sound source by moving toward a sounding object

Objective #3 (continued)

Suggested Materials:

Small bell, blocks, beads, musical toy, record player, radio, loudly ticking clock, music box, ticking metronome, or musical toy, blindfold

Activities:

1. Teacher sounds an object as in Objective #1, out of child's reach and/or sight.
2. Teacher keeps the source stationary and asks the child to come and find it.
3. Teacher hides a sounding object for child to find.
4. Children sit in circle and one sits blindfolded in middle. Teacher touches one of the children, who makes an animal sound. The blindfolded child must touch the child making the sound.
5. The child will:
    a. Locate sound source by turning in correct direction;
    b. Move toward sound source in straight line;
    c. Locate object with hand and/or eyes and grasp

---

Objective #4:

To demonstrate the ability to imitate by repeating patterned sounds

Suggested Materials:

Drum, tambourine, bell

Activities:

1. Using a tambourine, bell, or other sound source the child has, or by clapping hands, the teacher will make sounds and ask child to repeat them.
2. The child will:
    a. Make similar sounds, using hands in appropriate manner ("slap" tambourine, clap);
    b. Attempt to imitate rhythm by sounding instrument quickly or slowly; and
    c. Attempt to duplicate sound loudly or softly.

---

Objective #5:

To demonstrate the ability to imitate vocalized sound by responding to an approximation of the sound

Suggested Materials:

None

Activities:

1. The mother (teacher) will produce a sound (m, b, d, e, etc.) and ask child to repeat it, i.e., ma-ma, ba-ba, da-da, ka-ka.
2. The child will respond by imitating the sound: b, d, f, j, k, l, m, n, p, r, s, t, a, e, in conjunction with appropriate vowel sounds, i.e., ma-ma, ba-ba.
3. Teacher introduces simple nursery and nonsense rhymes, and child attempts to repeat the rhyme.
4. Teacher names an object or place unfamiliar to the children, and they attempt to repeat it.

Objective #6:

To demonstrate the ability to say the appropriate name of an object

Suggested Materials:

Object which would pair with sound, e.g., ball, cookie, doll, milk, foot

Activities:

1. Teacher gives children an object for which they have an appropriate sound.
2. Teacher repeats the object word while children examine and handle the object, stressing sound they know.
3. Children repeat the sound.
4. After several pairings, teacher asks children to "say" the word. (The word should remain part of vocabulary.)

# Visual Efficiency — A Continuum

Few diagnoses of eye impairments tell anything about the visual efficiency of the child with the exception of those which indicate total blindness, i.e., enucleaton (removal of an eye). In early childhood, visual capability is especially difficult to determine with any certainty. At one end of the spectrum, children may demonstrate recorded visual acuity of light perception in a medical examination, only to show some useful vision later. The physician, with all good intention, may label the child blind and prescribe everything from "braille for his education" to enrollment at five or six years old in a school for the blind. Over the past 20 years, public school administrators and teachers providing services to visually impaired children have seen many of these children (labeled as blind and receiving braille) enrolled for support services in the early grades in public schools and graduated from 12th grade reading regular print or a combination of print and braille.

## VISUAL EFFICIENCY IN INFANTS

According to Fay, et al., the vision of infants may be estimated by rotating an optokinetic drum in front of their eyes. If there is lateral or following motion of the eyes, the presence of vision is indicated. A small flashlight may also be adequate to elicit a visual response.

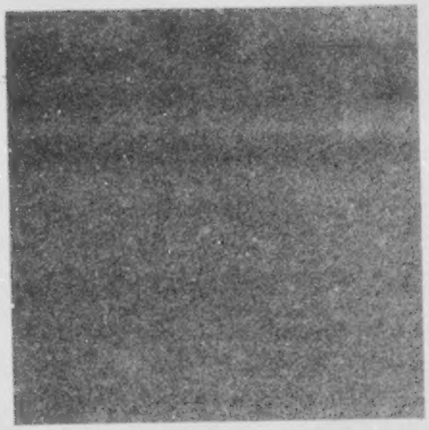
In their excellent article on visual competence, Appleton, Clifton, and Goldberg (1975) stated that adult human vision is more highly developed than are tactual, taste, and olfactory senses and that the normal human infant explores the immediate environment visually long before reaching or crawling toward an object. The authors hypothesized that this visual behavior may be the basis for future development of sensorimotor and social competence because more complex patterns of sensorimotor behavior seem to follow increased coordination of vision with the other sensory systems. Social competence is further enhanced as the infant moves toward, picks up objects seen, and learns to associate how they sound, feel, smell, and/or taste with how they look. More importantly, recognition of familiar faces and discrimination of unfamiliar ones greatly increases social competence.

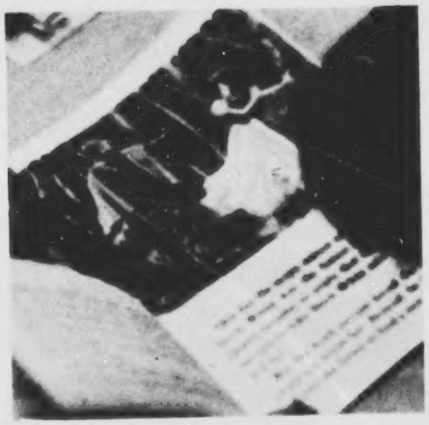
Unlike the auditory system, the infant's visual system is not mature at birth although it develops rapidly in the first six months. Evidences of this cited by the authors are shown in Table 17. In summary, they offer the following statements about infant visual competence:

1. The infant's visual system matures in a number of ways in the months immediately following birth; as a result, the infant experiences improved acuity, accommodation, and better control over eye movements. The period of most rapid maturation is probably between birth and six months.

2. The newborn can discriminate different levels of brightness, is attracted by movement, and prefers to look at a pattern rather than no pattern at all. By four months of age, the brightness threshold has lowered, regular patterns of movement can be anticipated, and patterns with more contour (or complexity) are fixated longer than patterns with less contour.

3. Numerous studies have indicated that infants can discriminate color, but methodological problems have prevented any clear conclusions, particularly regarding which colors are preferred.





One day the magic mirror to
Snow White was the fairest
Queen became so angry that
servant to take Snow White into
kill her.
But the kind servant loved the
would not harm her. Instead, he to
into the forest to find a new hom

4. Around two months of age, infants find the face an attractive visual stimulus, and the eyes alone are sufficient to elicit smiling. By four months, they prefer to look at a regularly arranged face rather than a distorted face, although different facial expressions may not be differentially responded to until around seven months of age. (p. 129)

## VISUAL EFFICIENCY IN CHILDREN (PRESCHOOL TO ADOLESCENCE)

According to Fay, Hood, and Sprague (1975), all children whose vision measures light perception or better are candidates for a low-vision evaluation and for utilization of low vision instruction, and should receive both as long as they have vision problems. For legal purposes, the following primary acuity levels along the continuum of vision loss have been identified:

Total blindness (TB): no light perception

Light perception (LP): ability to distinguish light from dark

Counts fingers: (CF @ ___ ft.) ability to count fingers held up at 2 feet, 5 feet, etc.

Legal blindness: 20/200 acuity or less in the better eye, with best correction

Partially sighted: 20/70 acuity or less in the better eye, with best correction and/or having a restricted field subtending an angle of 20° or less

Normal vision is identified as 20/20 acuity.

There are diminishing degrees of loss along the continuum from normal sight to total blindness and this is an extremely difficult perception for the sighted peers, families, and teacher with whom visually impaired children must cope as they strive to adjust and develop normally.

## SCREENING FOR VISUAL ABNORMALITIES

Although, no consistently reliable subjective tests of visual acuity for children under three years of age have been developed, intact visual pathways can be studied by observation of certain reflexes, i.e., pupillary reactions, vestibular reaction, opticokinetic nystagmus, and optically elicited body movements. To be reliable these tests must be conducted by a physician (Patz and Hoover, 1969).

Photographic recording of the eyes of infants with a portable camera has proven useful for detecting many ocular abnormalities. The physician reviews the photographs just as X-rays are read and when an abnormality is shown, referral for additional professional examination is made.

Screening of preschool children as young as 36 months of age has been successfully done by the Maryland Society for the Prevention of Blindness. Their screening kit includes a toy dog to test distance fixation, plus lenses to test hyperopia, red-green glasses for Worth Four-Dot flashlight test, portable camera, E cards in graduated sizes, and a Snellen chart. Children are first taught the game, "Show and Tell Which Way the Fingers Point." Screeners are trained to note and report any unusual appearance of the eyes and eyelids, i.e., inflamed, watery, pink, crossed, deviating eyes (turning out or in), unequal size or shape of pupils, or swollen, droopy, red-rimmed, crusted eyelids. Visual behaviors indicating discomfort or possible problems include rubbing the eyes, frowning, blinking, squinting, holding the head at odd angles to see something, and complaints of itching and burning by the child (Patz and Hoover, 1969).

It has been our experience that children with reported acuities of 1½/200 to 3/200 down to light perception are prime candidates for a program of intensive Vision Stimulation. By providing this intervention, utilization of their remaining vision is maximized and most of them use print materials for much or all of their education experience. Parents, teachers and workers with young children can observe visual orientation by noting whether:

- the child's eyes move in the direction of stimulus objects or people requiring his attention;
- the child can go to a designated chair or area by himself without tactual exploration;
- the child recognizes things near him and reaches for them or ignores them;
- the child examines objects visually or with his hands and face; and
- the child displays any of the previously listed behaviors indicating eye discomfort, i.e., rubbing the eyes, excessive blinking.

For further information concerning visual development, eye problems most frequently encountered in children (and their educational implications), and a glossary of terms relating to the eye, the reader is referred to "The Eye Report Points the Way" by Mrs. Amie Dennison, Appendix D.

## IMPLICATIONS

It is essential that teachers and workers with visually impaired children have a thorough knowledge of visual development and the implications for those impairments which seriously affect visual efficiency. Parent counseling, early utilization of residual vision, basic concept and skill development, self-care, orientation and mobility, and perceptual, social, and emotional development must be implemented within the context of perceptive, knowledgeable approaches to all forces affecting the child, i.e., physical, affectional.

The literature supports the findings of O'Brien (1975) that children who are only "legally blind" may have psychological and educational problems not typical of their blind and sighted peers. It is hypothesized that they do not receive the sympathy and support given to the blind child by the sighted even though they may see very little. At the same time, families, teachers, and peers may expect these children with severely restricted vision to perform inappropriate visual tasks. Other restrictions enforced may include not riding a bicycle or exploring the outdoor environment independently, and later, not driving a car. Neither blind nor sighted, these children may experience such anxiety and frustration that learning and adjustment are seriously affected.

Understanding of visual development and the implications for individual eye impairments on visual efficiency and emotional, cognitive, and social development is the obligation of every educator working with these children.

Table 17

Visual Behavior in Infancy*

| Age (months) | Focus and Convergence | Fixation and Tracking | Light and Color | Discrimination | Acuity and Maturation |
|---|---|---|---|---|---|
| >6 | Left eye looks left<br>Right eye looks right (if lacking) | | Gray is least preferred (0 - 14 months) | | |
| 6 | | | | Acutely aware: of visual cliff | 20/100 |
| 5 | | Smooth tracking | | Of mouth in face | Beginning to process visual world |
| 4 | | Pursues objects in depth near to far | Brightness threshold lowers; light sensitivity increases (1-4 months) | Of face | Fovea still developing 20/200 |
| 3 | | 90% fixation to face | | Scanning 35% awake time | Approaches adult function |
| 2 | Prefers stimulus that moves | TNR permits tracking arc = 90° | Color preference not proven | | Defensive reactions to objects |
| 1 | Able to follow moving stimulus | Fixates and refixates moving stimulus | | Focal length 6-10" scanning environment 5-10% awake time | |
| Newborn | Immature visual cortex<br>Optic nerve incompletely myelinated<br>Weak ciliary muscles: objects not in focus<br>Cornea: high refractive index | Prefers medium lights<br>Fixate and refixate stimulus | Color vision functional | Little attention to faces | 20/440 to 20/150<br>Visual system functional but immature |

*Appleton, T., Clifton, R., & Goldberg, S. Behavioral competence in infancy. Review of Child Development Research. New York: Russell Sage Foundation, 1975, 4.

## VISUAL DEVELOPMENT IN INFANCY

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Name ____________________

Age _____years _____months

Date of Assessment _______

Sensory/Perceptual Development
VISION TRAINING

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 0-6 mos. | 1. To demonstrate the ability to fixate visually on an object by moving head and/or eyes as object is moved within eight to twelve inches focal range<br>2. To demonstrate the ability to track a moving object<br>3. To demonstrate eye-hand coordination by reaching for fixed object | | | |
| 7-10 mos. | 4. To demonstrate eye-hand coordination by reaching for and grasping moving object<br>5. To demonstrate awareness of movement by moving after and grasping a moving object<br>6. To demonstrate an ability for visual search by locating an object visually | | | |
| 18 mos. | 7. To demonstrate the ability to perceive visual detail by locating the internal detail of an object | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate the ability to fixate visually on an object by moving head and/or eyes as object is moved within eight to twelve inches focal range

Suggested Materials:

Brightly colored beads, small doll, mobile, grasping rings, metal bell, flashlight

Activities:

1. Teacher holds an object in front of the child, moving, ringing, etc., so that it will attract the child's attention.
2. The child will:
   a. Move head and/or eyes, so that object is placed in line of vision; and
   b. Show some response to item by, smiling, reaching, excitement, etc.

---

Objective #2:

To demonstrate the ability to track a moving object

Suggested Materials:

Brightly colored beads, small doll, mobile, grasping rings, metal bell, ball, bottle, snack food

Activities:

1. Teacher moves a toy or ball toward the child.
2. Teacher moves similar object perpendicular to line of vision.
3. Child will follow object coming toward him by keeping eyes fixed on object.
4. The child will follow object as it moves across field of vision by moving eyes and/or head to keep it in line of vision.

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Objective #3:

To demonstrate eye-hand coordination by reaching for fixed object

Objective #3 (continued)

Suggested Materials:

Brightly colored beads, small doll, mobile, grasping rings, metal bell

Activities:

1. Teacher holds an object in front of the child, moving, ringing, etc., so that it will attract the child's attention.
2. After focusing on the item, the child will reach for and grasp item.

Objective #4:

To demonstrate eye-hand coordination by reaching for and grasping moving object

Suggested Materials:

Brightly colored beads, small doll, mobile, grasping rings, metal bell, ball, bottle, snack food

Activities:

1. Teacher moves a toy or ball toward the child.
2. Teacher moves similar object perpendicular to line of vision.
3. After focusing on the item, the child will gauge movement and reach for and grasp moving object.

Objective #5:

To demonstrate awareness of movement by going after and grasping a moving object

Suggested Materials:

Brightly colored beads, small doll, mobile, grasping rings, metal bell, ball, bottle, snack food

Objective #5 (continued)

Activities:

1. Teacher moves a toy or ball in area out of child's reach.
2. The child will:
   a. Focus on item;
   b. Move toward or after object until it is within reach;
   c. Gauge movement of object; and
   d. Reach for and grasp object.

---

Objective #6:

To demonstrate an ability for visual search by locating an object visually

Suggested Materials:

Brightly colored beads, small doll, mobile, grasping rings, metal bell, ball, bottle, snack food

Activities:

1. Teacher asks the child to find a specific item, a favorite toy, a person familiar to the child, etc.
2. The child will:
   a. Move eyes and/or head in searching fashion;
   b. Stop movement when item is located;
   c. Keep eyes fixed on object and make response, e.g., smile, reach for object, move toward object, etc.

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Objective #7:

To demonstrate the ability to perceive visual detail by locating the internal detail of an object

Suggested Materials:

Doll, book with large bold pictures, toys with various parts

Objective #7 (continued)

Activities:

1. The child will locate all items requested:
    a. Doll's eyes;
    b. Doll's nose;
    c. Doll's mouth;
    d. Doll's arms;
    e. Doll's legs;
    f. Ball;
    g. Dog;
    h. Little girl;
    i. House; and
    j. Car from picture in book.
2. Teacher shows child an object or book and asks him to point out details, e.g., facial parts on doll, specific object in picture. Be sure child knows what the item is, or uses the word and not a synonym, e.g., "car" for "automobile" if car is their word.

## OVERVIEW*

This bulletin was designed as a guide for those teachers engaged in developing a program of intensive sequential learning activities. The specific purpose of each activity is to train maximal use of very low degrees of remaining vision.

The following principles underlie the lesson development in this guide:

1. The visual process matures developmentally in spite of eye impairment or defects.
2. Visual acuity varies in individuals and has no one set value.
3. "Seeing" is largely a learned behavior.
4. Low vision children who are treated as sighted people and are provided with stimulating opportunities and encouragement to see, develop a higher level of visual efficiency than their peers with the same acuities who are treated as blind children.

The lesson sequence follows the four stages of visual discrimination delineated by Barraga on p. 112 in her original study. They are:

| | |
|---|---|
| Stage I. | Tactual and visual stimulation for discrimination and recognition of geometric forms in solid black and in outline shapes; ordering for size and relationship in left to right progression |
| Stage II. | Visual stimulation for discrimination and recognition of object forms in solid black, outline drawings, and outlines with inner details with discussion of class categories, uses, and descriptive words |
| Stage III. | Visual stimulation for discrimination and recognition of individual objects within groups of objects; similarities and differences among objects; story sequence with pictures; figure-ground discriminations; discrimination and recognition of letter symbols |
| Stage IV. | Visual stimulation for discrimination and recognition of word symbols and word combinations with pictures; discrimination and recognition of sight words, phrases, and sentences without pictures |

Implementation will include assessment of the visual functioning of each child; close attention to ophthalmological findings; administration of the Visual Efficiency Measure; and the initiation of instruction to stimulate use of residual vision where it is appropriate.

Although this curriculum has been based on the developmental stages of vision and the teaching procedures thus sequentially designed, it has been noted that the visual performance of some children may not follow the prescribed pattern of the lessons. The eye condition, maturation, and motivation of the individual child seem to be the determining factors in those children who are able to deal visually with materials in lessons beyond those they do not satisfactorily complete.

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* All material pp. 241-249 from Vision Stimulation, MCPS Bulletin 227, Revised 1971, Board of Education, Rockville, Maryland.

Name ____________________

Age _____ years _____ months

Date of Assessment _________

Sensory/Perceptual Development
VISION STIMULATION

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-6 yrs. | Lesson 1 (p. 12) | | | |
| | 1. To make tactual and visual discriminations of different sizes by arranging them sequentially according to diminishing heights and diameters | | | |
| | 2. To relate appropriate terms of comparison denoting height and diameter | | | |
| | Lesson 2 (p. 15) | | | |
| | 3. To reinforce concepts of size and ordered sequence developed in Lesson 1 | | | |
| | 4. To demonstrate visual discrimination of size likenesses and differences of pegs pictured in solid black by matching illustrations and arranging them in ordered sequence according to height or width | | | |
| | Lesson 3 (p. 18) | | | |
| | 5. To discriminate tactually and visually similarities and differences of size in a variety of manipulative objects | | | |
| 3-4 yrs. | Lesson 4 (p. 20) | | | |
| | 6. To make tactual and visual discrimination of geometric shapes, (round, square, triangular) presented in plane and pictured form | | | |
| | 7. To identify each by name | | | |
| | 8. To arrange in ordered sequence according to size | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Sensory/Perceptual Development
VISION STIMULATION

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Lesson 5 (p. 24)<br>9. To identify by name the circle, square, and square, and triangle in solid black and to match them to corresponding shapes in outline form | | | |
| 4-6 yrs. | 10. To demonstrate tactual and visual discrimination of additional geometric forms in plane, solid black, and outline form<br>11. To arrange outline forms in ordered sequence | | | |
| 3-4 yrs. | Lesson 6 (p. 28)<br>12. To demonstrate visual organization by assembling four-piece puzzles of four plane geometric forms (square, circle, triangle, star) and to name each one<br>Lesson 7 (p. 31)<br>13. To identify and name the three primary colors: red, yellow and blue; and the three secondary colors: orange, green and purple<br>14. To reinforce discrimination and identification of selected geometric shapes familiar to the child | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objectives:

1. To make tactual and visual discriminations of pegs of different sizes by arranging them sequentially according to diminishing heights and diameters
2. To relate appropriate terms of comparison denoting height and diameter

Suggested Materials:

1. Description: Three sets of pegs containing seven in each set
    a. All 4 inches in height; diameters 1 1/2 to 3/8 inches (Set 1)
    b. All 1 inch in diameter; heights 4 inches to 2 1/2 inches (Set 2)
    c. 4 inches to 2 1/2 inches in height; 1 1/2 inches to 3/8 inch diameter (Set 3)
2. Sources:
    a. Teacher-made materials using these dimensions
    b. Graduated wooden cylinders and stand: Creative Playthings (these and others of different dimensions may be used)

Activities:*

1. Teacher presents child with first set of pegs.
2. Teacher asks child to find the largest peg and the smallest peg, then to note differences in size of entire set.
3. Teacher asks child to arrange pegs in order of size from largest to smallest or from biggest to littlest. In case of unnoticed misplacements, teacher asks child to re-examine by closing his hand around each peg.
4. Set 2 presented--same procedure.
5. Set 3 presented--same procedure
6. Repeat entire procedure, placing pegs in order from smallest to largest. Make use of additional appropriate words of comparison such as:

| | |
|---|---|
| biggest, smaller, smallest | fattest, thinner, thinnest |
| tallest, shorter, shortest | longest, shorter, shortest |
| smallest, bigger, biggest | shortest, taller, tallest |
| thinnest, fatter, fattest | shortest, longer, longest |

* Note: Activities 1-5: Barraga, Lesson 1

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Objectives:

3. To reinforce concepts of size and ordered sequence developed in Lesson 1
4. To demonstrate visual discrimination of size likenesses and differences of pegs pictured in solid black by matching illustrations and arranging them in sequence according to height or width

Objectives 3 and 4 (continued)

Suggested Materials:

1. Description: Solid black two-dimensional representations of pegs used in Lesson 1
   a. Three sets of individual cards containing duplicate cards of each item (14 cards per set)
   b. Three cardstrips picturing each set of solid black forms of pegs in ordered sequence
   c. One large chart with selected peg forms in random order
2. Source: Teacher-made materials

Activities:*

1. Teacher presents the child with one card at a time in each set. Ask him to trace around the black form as teacher discusses with him the distances of finger movement. Call attention to the longest one, shortest one, etc.
2. Teacher asks child to find all the cards on which forms look the same height; then all those that look the same width. Discuss likenesses and differences.
3. Matching Game: Teacher selects a card, and the child finds one to match it. Proceed until all cards are matched.
4. Teacher presents card strips with each set in replica. Child matches his cards to those on the card strip.
5. Teacher presents child with cards of one set, and asks him to place them in order from largest to smallest or longest to shortest. Repeat for other two sets.

* Note: Activities 1-5 follow the general sequence of Procedures A-B: Barraga, Lesson 3

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Objective:

5. To discriminate tactually and visually similarities and differences of size in a variety of manipulative objects

Suggested Materials:

1. Description: Sets of at least five each of manipulative objects such as balls, discs, sticks, toy cars, dolls, blocks, etc. Each set must include at least two items of the same size and the others of different sizes. The differences must be in terms of height, width, and/or depth.
2. Source: Suitable teacher-selected objects from toy stores, dime stores, etc.

Objective #5 (continued)

Activities:

1. Give the child an object such as a disc, stick, or ball. Place other objects of assorted sizes of the same shape at various distances from the child. Some of these objects should be larger and some smaller than the one he has in his hand, and some should be the same size. Ask the child to identify the objects that are the same size as the one he holds.
2. Show the child two objects of distinctly different sizes from the same set, and ask him to point out the larger. Then show him two more pairs, the difference in size between the objects coupled becoming less with each pair. Some of the objects should vary only in height, width, or depth, so that the child can learn to discriminate between differences in size when objects are presented in each of the three dimensions.
3. An object of a third size should be added to the pairs used in the exercise above and the child should point out which is large, which is small, and which is of medium size. Then broaden the range of sizes and ask the child to sort the objects into order according to size.

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Objectives:

6. To make tactual and visual discrimination of three geometric shapes (round, square, triangular) presented in plane and pictured form
7. To identify each by name
8. To arrange in ordered sequence according to size

Suggested Materials:

Continuity is maintained in the use of manipulative forms and solid black illustrations

1. Description:
    a. Plane geometric forms (round, square, triangular) in at least three varying sizes
    b. Three cardstrips each illustrating in solid black, and in diminishing sizes from 2 inches to 1/4 inch, a row of one of the above geometric forms
    c. Large chart containing assorted sizes of each shape in random order
    d. One set of individual cards picturing all sizes of the three shapes in solid black
2. Sources: Teacher-made materials; Geometric Forms #736, Judy Company, Minneapolis, Minnesota; Gee-O-Metrik, BEMCO, Santa Monica, California; Geometric Insets, Creative Playthings

Objectives 6, 7, 8 (continued)

Activities: *

1. Teacher presents child with largest size of each plane geometric form. As child traces each with his finger, teacher names the form and calls attention to hand movements in terms of corners, points, curves, and straight lines.
2. Teacher gives child forms in the remaining sizes and asks him to separate them according to shape.
3. Teacher asks child to identify each form by name.
4. Child arranges each form according to size from smallest to largest.
5. Teacher removes plane forms and gives child cards illustrating 2-inch size of each shape.
6. Child names and traces each shape with his finger, noting corners, points, curves, and straight lines.
7. Teacher gives child cards of remaining sizes of each shape and asks him to separate according to shape.
8. Teacher presents child with cardstrip picturing size sequence of a shape, and asks him to match his cards to the illustrations on the cardstrip.
9. Teacher removes cardstrip, and child arranges his cards for each shape in rows according to size from smallest to largest.

* Note: Activities 5-9 closely parallel some procedures: Barraga, Lesson 6

---

Objectives:

9. To identify by name the circle, square, and triangle in solid black and to match them to corresponding shapes in outline form
10. To demonstrate tactual and visual discrimination of additional geometric forms in plane, solid black, and outline form
11. To arrange outline forms in ordered sequence

Suggested Materials:

1. Description:
   a. Plane geometric forms in at least three varying sizes of rectangle, hexagon, cross, star, oval, crescent, diamond, and half circle
   b. Cardstrips, each illustrating in solid black, and in sizes diminishing from 2 inches to 1/4 inch, a row of one of the eight geometric forms
   c. Cardstrips identical to those above, but with shapes in outline instead of solid black
   d. Two sets of individual cards picturing all sizes of the eight shapes, one set in solid black and the other set in outline form
   e. Cardstrips and individual cards used in previous lesson

Objectives 9, 10, 11:

Suggested Materials (continued)

f. A chart picturing in outline form and random order each of the shapes used in this and the previous lesson, each shape being represented in two sizes--1 inch and 1/4 inch

2. Source: Teacher-made and some commercial math kits

Activities:*

1. Child identifies by name the circle, square, and triangle in solid black as teacher presents each card individually.
2. Child selects from several outline drawings of these shapes a card to match each of the shapes in solid black.
3. Teacher presents child with largest size of each additional plane geometric form. As child traces each with his finger, teacher names the form and calls attention to hand movements in terms of corners, points, curves, straight lines.
4. Teacher gives child forms in the remaining sizes, and asks him to separate according to shape.
5. Teacher asks child to identify each by name.
6. Child arranges each form according to size from smallest to largest.
7. Teacher now removes plane forms and gives child cards illustrating 2-inch size of each shape in solid black.
8. Child names and traces each shape with his finger, noting corners, points, curves, straight lines.
9. Teacher gives child cards of remaining sizes of each shape and asks him to separate according to shape.
10. Teacher presents child with cardstrip picturing size sequence of a shape, and asks him to match his cards to the solid black illustrations on the cardstrip.
11. Child selects from an assortment of outline drawings of these shapes a card to match each of the shapes in solid black.
12. Child selects two shapes and arranges the sets of cards containing these shapes in outline form in ordered sequence.

* Note: Basic progression follows guidelines set forth in Barraga, Lessons 6, 7, and 8.

Objectives:

12. To demonstrate visual organization by assembling four-piece puzzles of four plane geometric forms (square, circle, triangle, star) and to name each one

Objective #12 (continued)

Suggested Materials:

1. Description:
   a. Four plane geometric forms, i.e., square, circle, triangle, star, four-inch size, cut into four-piece puzzles
   b. Individual cards of same shapes and sizes pictured in outline form
   c. Cardstrip picturing these shapes in 2 inch outline form
2. Source: Teacher-made materials

Activities:*

1. Child names each form as card is presented.
2. Teacher presents child with a picture of one form and, at the same time, with the same form cut in four puzzle pieces. Teacher asks child to assemble the pieces to look like the picture.
3. Repeat activity 2 using the other three shapes.
4. Teacher removes pictures of forms; presents child with the four puzzle pieces of one form, and asks child to assemble form from memory. Child names form as he assembles it. Repeat using other three puzzle forms.

* Note: Basic progression of this lesson follows guidelines set forth in Barraga, Lesson 9.

Objectives:

13. To identify and name the three primary colors: red, yellow, and blue; and the three secondary colors: orange, green, and purple
14. To reinforce discrimination and identification of selected geometric shapes familiar to the child

Suggested Materials:

1. Description:
   a. Cards picturing the square, circle, triangle, rectangle, diamond, and hexagon in each of the six primary and secondary colors: red, yellow, blue, orange, green, purple (36 cards)
   b. Charts picturing, in random order, each shape in three different colors, making sure that all six of the primary and secondary colors are shown in the same number of times. Two colored paper cutouts of each shape in each of the six primary and secondary colors (72 cutouts)
2. Source: Teacher-made materials

Objectives 13, 14 (continued)

Activities:*

1. Teacher asks child to give all the color names he knows.
2. Child relates each color name to something familiar such as sky, grass.
3. Teacher presents six cards, each picturing a circle in a different primary or secondary color. Child names the colors he knows and gives those cards to the teacher.
   Note: If child identifies all colors correctly, proceed to activity 9. Begin with activity 4 to teach those not known.
4. Teacher asks child to choose the color he sees best from among the remaining cards.
5. Teacher names the color selected by the child and presents the remaining shapes of that color.
6. Teacher presents all cutouts in this color and directs child to repeat the color name as he matches the cutouts, by shape, to the cards.
7. Child gives teacher correct shape as each is requested by name and color, e.g., "Give me a red square." "Give me a blue triangle."
8. Repeat activities 4-7 for remaining unidentified colors.
9. Teacher places a cutout square of each primary and secondary color in a row in front of the child. The child matches two colored cutouts (any shape) to each square in the row, and names the color.

* Note: If further development of color discrimination and identification is indicated, the following Supplementary Activities are recommended: Visual Motor Perception Teacher Materials, Ruth Cheve's Instructors' Guide, pp. 12-13.

FEEL ME

Name ____________________

Age _____years _____months

Date of Assessment _______

Sensory/Perceptual Development
TACTUAL AWARENESS

| Age Appropriate | Objectives | Response (+) | Response (-) | Response (o) |
|---|---|---|---|---|
| 3-4 yrs. | 1. To tell the difference between cold and hot by identifying changing temperatures of running water | | | |
| | 2. To identify which of two containers, containing liquids varying by 32° - 92° F, is warm and which is cool by feeling each container with his hands | | | |
| | 3. To identify which of three containers of water (each of 32° - 92° F difference in temperature) is warmest and which is coolest | | | |
| | 4. To demonstrate the ability to transfer the concepts of hot and cold temperature to other objects in the environment by making similar hot-cold, warmer-warmest identification, i.e., light bulbs, foods, etc. | | | |
| | 5. To identify the heavier and lighter of two objects by saying which is heavier or lighter | | | |
| | 6. To identify which of two surfaces feels hardest and which feels softest by applying pressure to the surfaces with his fingers | | | |
| | 7. To demonstrate the ability to categorize the feel of an object by identifying texture, i.e., smooth, rough, sharp, soft | | | |
| 4-6 yrs. | 8. To order from heaviest to lightest, by arranging items in order according to weight | | | |
| | 9. To recognize and identify objects in a "feel-box", and describe the attributes of each object | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Primary Reference: Texas Media Center
Texas School for the Blind
Austin, Texas

Sensory/Perceptual Development
TACTUAL AWARENESS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-6 yrs. | 10. To develop an understanding of breakable and unbreakable by categorizing objects in these two categories<br>11. To demonstrate an understanding of degrees of resiliency by placing objects in order from softest to hardest<br>12. To demonstrate an awareness of pressure by identification of and creative activity with a variety of impressionable surfaces, i.e., sand, snow, clay, dough, bread, etc.<br>13. To determine whether an object is vibrating by using his hand, arm, knee, foot<br>14. To identify vibrations in a variety of objects by following teacher directions in touching them or performing an act causing them to vibrate<br>15. To recognize varying intensities of changes in vibration by identifying them<br>16. To recognize vibrating objects in the environment by finding and identifying them | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To tell the difference between cold and hot by identifying changing temperatures of running water

Suggested Materials:

A sink with hot and cold running water

Activities:

1. Teacher asks child to close his eyes and stand near a sink. Teacher turns on one faucet and asks the child if the running water is hot or cold.
2. Teacher asks several times, using both the hot (warm) and cold water faucets.
3. The child will identify both the hot and cold running water (with his eyes closed).

---

Objective #2:

To identify which of two containers, containing liquids varying by 32° - 92° F, is warm and which is cool by feeling each container with his hands

Suggested Materials:

Two tuna fish cans (or any shallow container), warm water, cold water

Activities:

1. Teacher fills one container with warm water and a second container with cold water. Child is asked to put his hand in each container and identify which is cold and which is warm.
2. The child identifies the container holding the warm water and that holding the cold water after placing his hands on the outside of each container.

---

Objective #3:

To identify which of three containers of water (each of 32° - 92° F difference in temperature) is warmest and which is coolest

Objective #3 (continued)

Suggested Materials:

Three shallow containers, mildly warm water, cold water, and very warm water

Activities:

1. Teacher fills three shallow containers with water. One container contains cold water, another contains mildly warm water (almost cool), and the last contains very warm water (almost hot). The child is asked to identify the warmest and coldest water by touching the water in each.
2. After testing each of three containers by feeling the water inside, the child identifies which container holds the warm water and which holds the colder water by feeling the outside of each

Objective #4:

To demonstrate the ability to transfer the concepts of hot and cold temperature to other objects in the environment by making similar hot-cold, warmer-warmest identification, i.e., light bulbs, foods, etc.

Suggested Materials:

Small lamp, frozen food, warm food

Activities:

1. The teacher asks each child to identify a number of objects in the environment by hot or cold identification.
2. The teacher asks the child to identify as hot or cold the following:
    a. The inside of your mom's refrigerator;
    b. The oven when mom is cooking in it;
    c. Ice cream;
    d. Sunshine on a summer day when you go swimming;
    e. Snow;
    f. Fire on top of the candle;
    g. Light bulb when the lamp has been turned on for a long time.
3. Teacher discusses and guides the children through an exploration of the school environment for objects that are hot-cold, warmer-warmest, etc.

Objective #5:

To identify the heavier and lighter of two objects by saying which is heavier and which is lighter

Suggested Materials:

A cotton ball, a rock, a toothpick, a stick, a sweater, a winter coat

Activities:

1. The teacher gives a cotton ball and a rock to each child. The child must identify which is heavier (or which is lighter).
2. The teacher gives the child any two objects of differing weight and child identifies which is heavier and lighter.

---

Objective #6:

To identify which of two surfaces feels hardest and which feels softest by applying pressure to the surfaces with his fingers

Suggested Materials:

| Set A | Set B |
|---|---|
| A clump of yarn | A pebble |
| A rock | A cotton ball |

Activities:

1. Children are asked to use their fingers and press and touch two sets of objects. They must determine which of the two items in the set is the harder and which is the softer.
2. Children will identify the harder and the softer item in each of two sets.

---

Objective #7:

To demonstrate the ability to categorize the feel of an object by identifying texture, i.e., smooth, rough, sharp, soft

Objective #7 (continued)

Suggested Materials:

Cotton balls, letter opener, sandpaper, silk, burlap, pointed scissors, fur, fabric samples

Activities:

1. Teacher arranges a large selection of tactually stimulating textures for children to feel.
2. Children rub textured objects on hands, face and body.
3. Teacher prepares cards with various textures in duplicate. Children match cards with the same texture.
4. Children arrange texture cards from softest to hardest, smoothest to roughest, etc.
5. Children categorize objects by identifying objects as soft, smooth, sharp, rough.

---

Objective #8:

To order from heaviest to lightest, by arranging items in order according to weight

Suggested Materials:

Cotton ball, rock, large magnet

Activities:

1. The teacher gives each child a cotton ball, a rock, and a magnet. After examining each, the child can identify which is the heaviest, the lightest, and the one in between (in weight).
2. The child will arrange each of the three items from heaviest to lightest after holding them.

---

Objective #9:

To recognize and identify objects in a "feel-box," and describe the attributes of each object

Objective #9 (continued)

Suggested Materials:

A covered box large enough to hold objects plus a child's hand and arm. The box should have a hole cut in it; the hole should be large enough for the child to put his hand through. (The child should not be able to look into the box while feeling objects placed in the box by the teacher.)

Activities:

1. Teacher places an object into the feel-box.
2. Each child takes a turn placing a hand through the hole in the feel-box and describes how the object feels.
3. After each child has had a turn feeling the object and describing it, the children try to identify what's in the feel-box.
4. Children make "guesses" as to what is in the feel-box after each person has had a chance to feel and describe the object.

---

Objective #10:

To develop an understanding of breakable and unbreakable by categorizing objects in these two categories

Suggested Materials:

Egg shells, dry leaves, cracker, glass jar, ball, rubber elephant, pencil, paper napkin, ball of string, wooden bead

Activities:

1. Children are given a box of breakable and unbreakable items. They are asked to sort them into these two categories.
2. Children will categorize items in classroom as either breakable or unbreakable.

---

Objective #11:

To demonstrate an understanding of degrees of resiliency by placing objects in order from softest to hardest

Objective #11 (continued)

Suggested Materials:

A rock, a clump of yarn, a sponge

Activities:

1. Teacher gives child three items (rock, yarn, and sponge) and demonstrates as the child holds, squeezes, and thoroughly handles each item and determines the order of objects from softest to hardest.
2. Child finds three objects in classroom and places them in proper order of resilience from softest to hardest.

---

Objective #12:

To demonstrate an awareness of pressure by identification of and creative activity with a variety of impressionable surfaces, i.e., sand, snow, clay, dough, bread, etc.

Suggested Materials:

Sand, snow, clay, pie dough, play dough, bread, finger paints, fruits, and vegetables

Activities:

1. Child plays in sand box.
2. Child feels a piece of fruit or vegetable and tells how it feels.
3. Child feels a piece of fresh bread and a piece of dry bread.
4. Child makes designs in the snow.
5. Child makes designs and objects with clay.
6. Child handles pie dough.

---

Objective #13:

To determine whether an object is vibrating by using his body: hand, arm, knee, foot

Objective #13 (continued)

Suggested Materials:

Guitar, record player, piano, electric razor, radio, comb, ruler, paper strips, button, chair, doll, pencil

Activities:

1. Teacher selects an object which may or may not be vibrating.
2. Teacher touches the object (vibrating or not) to the child's arm (foot, knee, hand).
3. Child tells teacher how it feels. Child tells if the object is vibrating.

Objective #14:

To identify vibrations in a variety of objects by following teacher directions in touching them or performing an act causing them to vibrate

Suggested Materials:

Styrofoam cups, comb, ruler, pencil, paper pad, tuning fork, rubber band, paper clip, envelope, button, electric razor, piano, guitar, radio, record player, drum, wax paper, aluminum foil, doll

Activities:

1. Teacher directs children to hold styrofoam cups over their mouths and tells them to hum into cups.
2. Teacher makes ruler vibrate (by striking on a table's edge) and children touch the ruler with their hands.
3. Teacher touches a vibrating (or nonvibrating) tuning fork to a child's hands (or other body parts).
4. After the child follows the teacher's directions, or performs a specific act himself, he identifies whether the object is vibrating or not.

Objective #15:

To recognize varying intensities of changes in vibration by identifying them

Objective #15 (continued)

Suggested Materials:

Same as Objective #14

Activities:

1. Children hum a song and place their fingers on their throats. (They should hum high and low, fast and slow.)
2. Teacher hums a song on a kazoo (or comb kazoo). Children feel the vibrations as teacher plays kazoo. (Comb kazoo can be made by folding tissue paper over comb.)
3. Children learn how to make a ruler vibrate over edge of table and experiment with various speeds of vibrations.
4. Children feel the vibrations on an electric razor set at low speed and then on a high speed.
5. Children determine whether the objects are vibrating fast or slow, weakly or strongly.

---

Objective #16:

To recognize vibrating objects in the environment by finding and identifying them

Suggested Materials:

Guitar, record player, tape recorder, TV, radio, cassette, refrigerator

Activities:

1. Teacher sets up many samples of vibrating equipment in room.
2. Children go around the room and try to recognize those items vibrating in their environment.
3. Children identify those objects in their environment that are vibrating.

Name ____________________

Age _____years _____months

Date of Assessment _______

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-5 yrs. | 1. To demonstrate tactual awareness by using both hands to find raised details on embossed pages of a pre-Braille skills book<br>2. To locate a specific embossed item in a book by searching each page of that book<br>3. To demonstrate an understanding of likenesses and differences of objects on a page by identifying the like objects and the different objects<br>4. To identify objects tactually by naming those in the object collection<br>5. To demonstrate an understanding of categories by classifying objects in the object collection, i.e., something you eat, pets, animals, etc.<br>6. To demonstrate an understanding of long and short lengths by identifying appropriately embossed materials as long, longer, short, shorter<br>7. To demonstrate tactual awareness of the triangle, circle, square, rectangle, heart, and semicircle by using both hands to identify each shape located in a skills book | | | |
| 5-6 | 8. To demonstrate an understanding of thin and thick widths by identifying appropriately embossed materials as thin or thick | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate tactual awareness by using both hands to find raised details on embossed pages of a pre-Braille skills book

Suggested Materials:

The Yarn Book, First Button Book, Second Button Book, Third Button Book, Fourth Button Book

Activities:

1. Teacher instructs children to practice pulling their fingers smoothly along the embossed lines on each page.
2. Teacher emphasizes the use of the index fingers in following continuously along the raised lines; first using the right index finger, then the left, then both together.
3. Children correctly use hands, first the right, then the left, then both together, to follow along the raised lines on each page. (Any or all of the suggested materials may be used.)

Objective #2:

To locate a specific embossed item in a book by searching each page of that book

Suggested Materials:

Pre-Braille skill books: Touch & Tell

Activities:

1. Teacher instructs children to locate tactually specific objects within their reach.
2. Teacher instructs children to turn to a page and find a specific raised item in that book.
3. The children will correctly search each page until each child finds the embossed item specified by the teacher.

Objective #3:

To demonstrate an understanding of likenesses and differences of objects on a page by identifying the like objects and the different objects

Suggested Materials:

The Stick Book, The Button, Division of Lines Book, Fine Line Book, assorted objects

Activities:

1. The teacher asks each child to search each page for tactually different objects.
2. The teacher asks each child to search each page for tactually alike objects.
3. The children correctly identify which items are different and which are alike on page selected by classmate (taking turns).

---

Objective #4:

To identify objects tactually by naming those in the object collection

Suggested Materials:

Thirteen boxes in Object Collection, American Printing House for the Blind

Activities:

1. Teacher hands each item, one at a time, to children for identification. As children identify it, it is placed in a separate pile.
2. Children examine and identify objects at a learning center, i.e., objects that are round, objects with moving parts, etc.

---

Objective #5:

To demonstrate an understanding of categories by classifying objects in the object collection, i.e., something you eat, pets, animals, etc.

Suggested Materials:

Any or all of 13 boxes in the object collection

Objective #5 (continued)

Activities:

1. Teacher hands each item, one at a time, to children for identification.
2. After each item is identified and placed back in the box, children select specific items fitting into the categories designated by the teacher, (i.e., something you can eat).
3. Children select five items from each box that fit the category designated by the teacher.

---

Objective #6

To demonstrate an understanding of long and short lengths by identifying appropriately embossed materials as long, longer, short, shorter

Suggested Materials:

The Stick Book, Fine Line Book, Division of Lines Book, Cuisenaire Rods

Activities:

1. Teacher asks the children to turn to the first page of a selected book. They feel and note the length of one embossed item by examining it carefully with both hands.
2. Teacher discusses the concepts of long and short, and asks children to compare each item on each page, i.e., which line is short? shorter? long? longer?
3. Children examine each page, and decide which items are long or short. (Where several items are on a page, the children will be able to tactually determine which ones are shorter or longer than the others.)

---

Objective #7:

To demonstrate tactual awareness of the triangle, circle, square, rectangle, heart, and semicircle by using both hands to identify each shape located in a skills book

Suggested Materials:

The Shape Book, The Form Book, Touch & Tell

Objective #7 (continued)

Activities:

1. Teacher instructs the children to practice pulling their fingers smoothly along the edges of each shape, emphasizing the use of the index fingers in following continuously along the edges of the shapes.
2. Teacher instructs children to use first the right index finger, then the left, then both together, and discusses with the children each shape's characteristics.
3. The children correctly identify each shape tactually.
4. Children correctly use first one hand, then the other, then both together to make the tactual identification.

Objective #8:

To demonstrate an understanding of thin and thick widths by identifying appropriately embossed materials as thin or thick

Suggested Materials:

The Book of Different Widths

Activities:

1. Teacher asks the children to turn to the first page and to feel and note the width and length of the one piece of silk cloth by examining it carefully with both hands.
2. Children turn to the second page and feel the piece of velvet ribbon. They compare the width and texture with those of the material on the first page.
3. Teacher discusses narrow (or thin) and thick, and goes through each page carefully with the children, discussing the fact that each piece of material studied is thin or thick.
4. The children examine each page and decide which items are thin or thick. Where there are two items to a page, the children tactually determine which one is thicker (or thinner) than the other.

Name ____________________

Age _____years _____months

Date of Assessment _______

Sensory/Perceptual Development
SENSORIMOTOR DEVELOPMENT

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | Motor Development | | | |
| 3-4 yrs. | 1. To demonstrate appropriate gross motor development by participating in selected stunts and games | | | |
| | 2. To demonstrate appropriate development of balance and posture by performing animal walks and balance activities | | | |
| | 3. To demonstrate body awareness by identifying parts of the body in action and singing games | | | |
| | *4. To develop a growing awareness of the possibilities of body movement by participating in a variety of movement exploration activities, i.e., "How many parts of your body can you bend?" | | | |
| | Visual Perception | | | |
| | Many objectives and activities in this guide are coordinated with the vision stimulation program or are incorporated in it. | | | |
| | Auditory Perception | | | |
| | 5. To demonstrate appropriate auditory perception by responding to verbal request correctly | | | |
| | Spatial Organization | | | |
| | 6. To demonstrate appropriate perceptions of body image by identifying body parts and following oral directions for movement | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

*Not included in field testing

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-6 yrs. | 7. To demonstrate concepts of laterality and sequencing by completing directed activities successfully, i.e., lining up beads (from a pattern), passing ball left or right, block placement, counting on a calendar<br>Note: This area is further developed and more specifically defined through use of selected Frostig materials. | | | |
| | Visual-Motor Perception | | | |
| 3-4 yrs. | 8. To demonstrate development of figure-ground perception by identifying principle or requested figure in the context of its background<br>9. To demonstrate awareness of form perception by duplicating simple forms and patterns<br>10. To demonstrate eye-hand coordination by completing varied directed activities, i.e., string beads, move beads on abacus, drop objects into container from different positions, trace plastic shapes with outline on paper<br>Note: A much more definitive approach to this area is accomplished by using additional teacher-made and Frostig materials for development of visual perception.<br>11. To indicate recognition of six basic shapes (oval, circle, triangle, square, rectangle, diamond) by verbally identifying each shape after tactually studying them | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-6 yrs. | 12. To develop controlled arm and hand movements by coloring a given design | | | |
| | 13. To display eye-hand coordination by effectively manipulating scissors in cutting on or between lines | | | |
| | 14. To develop concepts of constancy of form and size perception of shapes by having child point to the same shapes, regardless of size differences | | | |
| | 15. To discriminate figure-ground details by drawing around or coloring in designated areas, as directed by the teacher | | | |
| | Primary References: A Perceptual Motor Program<br>Richmond Public Schools<br>Perceptual-Motor Development Program<br>Jean Fairbanks and Janet Robinson | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate appropriate gross motor development by participating in selected stunts and games

Suggested Materials:

Mat for stunts, any tangible object for "Who Stole It" (i.e., an eraser)

Activities:

1. Using any of the following, teacher explains the game, sets the rules, and involves children in games and stunts, i.e.,

Suggested Games:

- Simon Says
- Indian Chief
- Duck Duck Goose
- Who Stole It?
- Follow the Leader

Suggested Stunts:

- Animal walks (bear, crab, seal, inch worm, lame dog)
- Rolls (log, forward)
- Wheelbarrel walk

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Objective #2:

To demonstrate appropriate development of balance and posture by performing animal walks and balance activities

Suggested Materials:

Tumbling mat, balance beam

Activities:

1. Teacher instructs children how to perform the following animal walks on tumbling mat: bear, crab, seal, inch worm, lame dog.
2. Teacher instructs children on walking balance beam forward, backward, and sideways.

---

Objective #3:

To demonstrate body awareness by identifying parts of the body in action and singing games

Objective #3 (continued)

Suggested Materials:

Record player, records, piano

Activities:

1. Teacher instructs children in the rules and words to selected games and records: "Simon Says," "Hokey Pokey," "Looby Lou," "Touch Your Arm, Leg" (Hap Palmer records).
2. Children identify all the parts of their bodies called for by leader of game or by words of the song.

---

Objective #4:

To develop a growing awareness of the possibilities of body movement by participating in a variety of movement exploration activities, i.e., "How many parts of your body can you bend?"

Suggested Materials:

None

Activities:

1. Teacher presents a problem for each child to solve as he chooses:
   a. How many ways can you move across the room? (Walk forward, backward, sideways; crawl, wriggle, roll, etc.)
   b. Pretend to be a balloon (rocket, flower, raindrop, etc.). Show me how you would look.
   c. How big can you make your body? How small?

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Objective #5:

To demonstrate appropriate auditory perception by responding to verbal request correctly

Suggested Materials:

Any 10 objects such as: ball, brush, doll, hat, plastic container, etc.

Objective #5 (continued)

Activities:

1. Teacher directs each child to find and place objects in specific place, i.e., "Find a ball somewhere in this corner of the room, and put it on the wooden table."
2. Teacher makes sounds of different pitches by various means and in different areas of the room (i.e., piano, bell, drum, etc.) and child identifies each.

---

Objective #6:

To demonstrate appropriate perceptions of his body image by identifying body parts and following oral directions for movement

Suggested Materials:

Wall mirror

Activities:

1. Teacher helps children identify the following on their own bodies: head, eyes, nose, ears, neck, shoulders, tummy, chest, arm, leg, foot, back, hand, fingers.
2. At teacher request:
   a. Children move their bodies in a specified manner, i.e, "Put your hands on your head. Put your hands on your shoulders."
   b. Children identify each of the 14 body parts listed above on their own bodies.
   c. Children correctly follow fine movement activities.

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Objective #7:

To demonstrate concepts of laterality and sequencing by completing directed activities successfully, i.e., lining up beads (from a pattern), passing ball left or right, block placement, counting on a calendar

Suggested Materials:

Large class calendar, blocks, beads, ball, counters, etc.

Objective #7 (continued)

Activities:

Teacher supplies materials and supervises activities where the child:
1. Counts left to right;
2. Passes a ball to the left or to the right;
3. Copies a pattern by stringing beads in a given sequence;
4. Places blocks in a given order.

---

Objective #8:

To demonstrate development of figure-ground perception by identifying principle or requested figure in the context of its background

Suggested Materials:

Teacher-made drawings of several simple figures on a busy background

Activities:

Teacher and children work together through many teacher-made sheets until children learn to discriminate designated simple figure from extraneous background.

---

Objective #9:

To demonstrate awareness of form perception by duplicating simple forms and patterns

Suggested Materials:

Dark crayon; unlined paper

Activities:

Teacher directs children to copy as many simple figures as possible: triangle, circle, square, oval, rectangle.

---

Objective #10:

To demonstrate eye-hand coordination by completing varied directed activities, i.e., string beads, move beads on abacus, drop objects into container from different positions, trace plastic shapes with outline on paper

Suggested Materials:

Abacus, beads, bucket, flat plastic shapes for tracing, paper, pencil, bean bags, blocks, block of wood or tree stump with holes drilled in, screws, screwdriver, board with holes, metal disc

Activities:

1. Teacher demonstrates and child:
   a) strings beads (this may be done to a designated pattern), b) moves beads on abacus, c) drops bean bags into bucket from different positions, d) traces plastic shapes onto paper which already has outlines of several simple shapes printed on it, e) constructs simple tower of building blocks.
2. Child places screws in appropriate holes in piece of wood, and uses screwdriver to tighten them.
3. Child uses index finger to push tiny metal ball or disc across board with holes, attempting to slide disc into a hole.
4. Child completes variety of puzzles.

Objective #11:

To indicate recognition of six basic shapes (oval, circle, triangle, square, rectangle, diamond) by verbally identifying each shape after tactually studying them

Suggested Materials:

Shapes, shape dominoes, shape game boards

Activities:

1. Teacher marks shapes on floor with tape. Children follow the lines of the shape.
2. Teacher and children play a variety of shape games, i.e., shape lotto, shape bingo, shape dominoes.

Objective #12:

To develop controlled arm and hand movements by coloring a given design

Suggested Materials:

Worksheets with designs or pictures to be colored, crayons

Activities:

Child completes a color page, attempting to stay within the lines.

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Objective #13:

To display eye-hand coordination by effectively manipulating scissors in cutting on or between lines

Suggested Materials:

Fairbanks - Robinson Perceptual-Motor Development Kit - cutting exercises; teacher-made worksheets with lines for child to cut on or between; scissors, paper

Activities:

1. Teacher may use double-handled scissors until child is accustomed to open-shut movement and position of fingers.
2. Child cuts paper into pieces.
3. Child cuts along or between lines on worksheets.

---

Objective #14:

To develop concepts of constancy of form and size perception of shapes by having child point to the same shapes, regardless of size differences

Suggested Materials:

Fairbanks - Robinson Perceptual- Motor Development Kit - Constancy of Form and Size Exercises
Frostig's Developmental Program in Visual Perception - Perceptual Constancy Activities

Objective #14

Suggested Materials (continued)

A variety of shapes, shape worksheets (with shapes of varying size)

Activities:

1. Child identifies specific shape on teacher request.
2. Child discriminates between shapes on basis of size, i.e., a big circle and a small one.
3. Child identifies specific shapes, i.e., all the circles, squares, etc. on a worksheet.

Objective #15:

To discriminate figure-ground details by drawing around or coloring in designated areas, as directed by the teacher

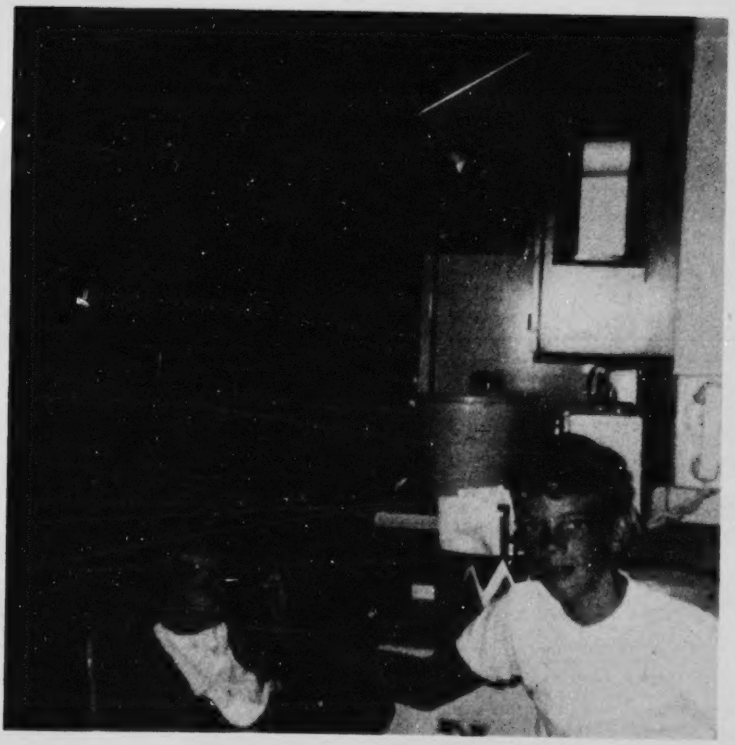
Suggested Materials:

Teacher-made worksheets showing objects or shapes (some of them overlapping);
Fairbanks - Robinson Perceptual-Motor Development Kit - Figure-Ground Discrimination Exercises;
Frostig's Developmental Program in Visual Perception - Figure-Ground Perception

Activities:

1. Child finds one object from among a group of different ones, i.e., one red ball in box of blue balls, etc.
2. Child finds an object, on a worksheet, that is partially covered by another.

# intervention strategies



## Physical and Emotional Bases of Behavior *

Although the environment strongly influences behavior, many changes take place within the child. As his body grows in size in a reasonably patterned manner, so his behavior development follows a generally predictable sequence. This includes the areas of eating, sleeping, talking, moving about, and socialization skills.

It is important, however, that parents not take any timetable too seriously. Suggested intervention is minimal and will depend on the creativity and resourcefulness of the teacher and worker. The primary need of every parent of a youngster with a severe impairment is supportive assurance and encouragement, with emphasis on identified strengths and positive factors in the child's development. It is on strengths that we build, not on limitations. Coupled with this position, however, must be a sensitive approach to needed counseling and intervention designed to provide opportunities for developing appropriate behaviors which over-protective, frightened parents may not realize are needed.

A knowledge of basic developmental patterns enabling parents to know the probable direction of expected changes with explicit techniques, counseling support, and needed resources are essential to the optimum development of both parents and child.

Knowing that some unattractive behavior is typical of a given age will help parents to be more relaxed about it and to more readily recognize their roles in causing the behavior by expecting too much at a given time.

Gesell states that children are born with a visual hunger. The infant resists excessive light by blinking; he very soon uses his waking time for accumulating visual experiences and for the exercise of his eyes; and he does not wake up until he begins to look and goes back to sleep when looking stops (Gesell and Amatruda, 1962).

Early developmental assessment must appraise ability in terms of personality as well as observable performance. Few conventional methods of assessment are appropriate for blind children. Gesell suggests that adaptations must follow cues of the child's spontaneous behavior. Vision is a social and an intellectual sense, and a total absence of visual imagery from infancy threatens to force the blind child into introversion, with the organization of personality more endangered than his physiological development (Gesell and Amatruda, 1962).

Parents must be assisted in establishing the best possible environment and counseled to observe some very practical guidelines:

1. Treat your visually impaired child as a seeing child, with common-sense adaptations.
2. Let him take his lumps in learning to walk and exploring his environment.
3. Permit and encourage child to be as curious and active as seeing peers.
4. Teach personal care skills at the appropriate developmental level and expect them to be performed, i.e., undress and dress self, comb hair, cleanliness.

5. Train and require child to take care of own possessions.

6. Help child to acquire agreeable social behavior.

7. Regard any performance which approximates the child's age or developmental level as a sign of maturity, and reinforce and build on it.

Because the normal ability to see increases as the child grows, there are specific dangers threatening the total development of the blind child. A blind infant tends to be indifferent to the world and may suffer environmental impoverishment causing serious developmental delay if parents are overprotective.

Such an infant may become anemic, physically underdeveloped, have flabby muscles and many blindisms. The latter are labeled "nervous behaviors" such as rocking, eye rubbing, finger movements before the eyes, sniffing and smiling, and repeated vocal tics. They are symptomatic and not constitutional. Lacking external sensory stimulation or input, the organism will initiate such stimulation from within.

In planning and intervention with visually impaired infants, attention should focus on maturational factors instead of habit training. Potentialities should be determined by identifying and releasing natural strengths. The infant, for instance, must not be permitted to lie on his back for 18 months. He must be assisted and encouraged to sit up, to reach, to grasp, to manipulate, to stand, walk, run, and to play games (Gesell and Amatruda, 1962).

Because the major sensory modality is lost to the blind child, maximum development of remaining modalities is essential. Norris, Spaulding, and Brodie note an objection by many to the word "stimulation" because it implies doing something to the child with little consideration for his own motivation (Gesell and Amatruda, p. 271).

Recognizing the danger of this interpretation, the philosophy of this program agrees with these authors in that intervention should be defined in terms of providing opportunities for learning at successive levels of development on the basis of diagnostic assessment. It should be stressed that the responsibility of parents is not to "teach" the child, but to reinforce, follow through, and provide opportunities and settings that will support development.

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* Gesell, A. & Amatruda, C. Developmental Diagnosis. New York: Paul E. Hoeber, Inc., 1962.

Ilg, Frances & Ames, Louise. Child Behavior. New York: Harper & Row, Publishers, 1955.

# PHYSICAL AND EMOTIONAL
# BASES OF BEHAVIOR
(0-3 yrs.)
(Primary Reference: Ilg and Ames)

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| | To develop parent awareness of normal (typical) developmental sequence of the ages and stages of behavior<br>Note: Essential warning! Described characteristic behavior does not mean that all children will fit a pattern at any level all of the time. It is a guideline for an average child of average development. The order in which the stages follow is more important, although children may seem to combine some behaviors | Most important function: Supportive reassurance<br>- Teacher or worker fills in checklist by observation and parent interview.<br>Counsel parent:<br>- Periods of calm tend to be followed by less-well-adjusted periods. |
| 4 wks. | | Instruct parent in normal physiological development.<br>Child now breathes with regularity, heart has steadied, body temperature is constant, has better muscle tone. Preferred position when awake may indicate later preferred handedness. (Preferred hand and arm will be extended more often.) |
| 12 wks. | To assist parents in formulating realistic expectations | Advise that this period of disquiet should pass by 16 weeks.<br>Begin games: Baby Learning Through Baby Play; A Parent's Guide for the First Two Years, by Ira Gordon. University of Florida, 1970. |
| 16 wks. | | Suggest to parent that, at this level, babies typically like lying on the big bed and kicking, and like to be held or propped up in a sitting position for brief periods. (Carry and walk with the baby often.)<br>Child should be placed on flat surface, his back massaged and legs gently exercised, if swimming position not evident. |

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| 28 wks. | (same objectives) | This is a stage of equilibrium. Advise parents, however, that the growth complex never fully stabilizes and remains optimum. New tensions of development always come to upset any state of balance. |
| 32 wks. | | This is a stage of regrouping. Crying and withdrawing from strangers or unfamiliar things mark the beginning of the ability to perceive likenesses and differences. |
| 40 wks. | | Stage of equilibrium |
| 36-40 wks. | | Talk to the baby constantly in a warm, soft, reassuring voice. Describe what you are doing (nouns). Identify toes, body parts verbally from now on.<br>Provide small objects to grasp. |
| 52 wks. | | Play games, i.e., peek-a-boo, chase as he creeps.<br>Communicate by touch and tone that you enjoy him. |
| 15 mos. | | Instruct parent:<br>Develop a repertoire of active lively games to relieve frustration and teach some beginning basic concepts.<br>Resource: Baby Learning Through Baby Play; A Parent's Guide for the First Two Years, by Ira Gordon |
| 18 mos. | | "Lure him, pick him up, carry him, but do not call him."<br>Keep in mind that he is extremely immature, emotionally and physically.<br>Refrain from using phrase "bad boy." |

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| 18 mos. (cont.) | (same objectives) | Provide games, stair climbing, any other opportunities for working off energy and frustration.<br>Introduce texture assortment box, roll him in grass, sand, or snow.<br>Provide and identify rich tactual and haptic stimulations. |
| 2 yrs. | | This is a stage of equilibrium. If behavior reflects appropriate developmental level, enroll him for brief small group experiences, i.e., nursery instead of baby sitter for short periods, Sunday school nursery. |
| 2-1/2 yrs. | | This is a stage of peak agitation and frustration and an age of violent emotions. Assure parents that this behavior does make sense.<br>Work around the behavior. Don't meet it head on.<br>Suggest a variety of behavior management techniques and patience to get through this difficult time. |
| 3 yrs. | | If child's behavior reflects this general developmental level, enroll him in a good early childhood education preschool. |

Early Intervention

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| | Eating: (Birth - 18 mos.) | |
| 0-3 mos. | To coordinate sucking, swallowing, and breathing | If the infant has difficulty in this most basic task, it may suggest a needed change in posture while nursing or in the nipple if bottle fed. Any problems which can't be resolved reasonably quickly at home should be brought to the physician's attention immediately.<br>As soon as possible, the child's hands should be placed on the bottle or breast while feeding. Blind infants will not see the source of the milk and should be guided into early tactual exploration of the source of this satisfying experience. |
| | To swallow pureed food | It is important that feeding time be relaxed and happy. New foods should be introduced one at a time by putting a very small spoonful on the back of the tongue. Mix it with an already accepted food to avoid rejection of a strange new taste. Introduce at the beginning of feeding when baby is most hungry.<br>Special or unusual feeding problems should be referred to the physican and/or physical therapist for consultation.<br>Reflexes present: sucking and rooting |
| 3-6 mos. | To move food in the mouth with tongue<br>To bring hand to mouth | Child should not be expected to chew now but that ability can be developed by the use of finger foods. If there is resistance or difficulty in moving the food back for swallowing, put a very small amount of jelly or peanut butter on the tip of your finger and rub it in the roof of the child's mouth. This should stimulate both the taste buds and tongue movement. |

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| | | Gumming or mouthing food develops rapidly after successful swallowing develops. Child should be fed in an upright position. Junior foods should be introduced gradually. |
| 6-12 mos. | To feed self finger foods<br>To learn to drink from a cup<br>To begin to hold spoon | The most effective methods are to:<br>1) use favorite foods for training and rewards;<br>2) have child sit in high chair and eat with the family;<br>3) show and guide the use of a spoon to the visually impaired child because he cannot learn this skill from observation.<br>Cup with small amount of fluid should be introduced. |
| 12-18 mos. | To grasp cup with digital grasp<br>To lift cup and drink from it<br>To hand cup to mother on request<br>To grasp spoon and insert into dish<br>To fill spoon and get it into mouth | This skill develops sequentially by child drinking from cup held by adult, helping adult to hold cup, and by practicing holding it independently to drink. Since very young children have a tendency to release objects as they finish with then, handing cup to mother or replacing it on table must be taught.<br>Early efforts to use a spoon typically result in turning it over and spilling the contents before it gets into the mouth. Stand or sit behind child, put spoon in his hand, palm down, and guide it to his mouth and back to bowl.<br>Provide unbreakable, nontip cups and bowls.<br>Note: If furniture is not appropriate to child's size, be sure that his feet rest firmly on a flat surface and that he is well-supported. Blind children, especially, become very anxious when they cannot "connect" or feel based on a secure surface. |

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| 18-24 mos. | To handle cup well: lifting, drinking, replacing<br>To hold small glass in one hand to drink from it<br>To insert spoon in mouth with some food spilling | Child should hand empty dish to mother.<br>Moderate spilling is to be expected. Continued help in feedings is needed. |
| | Eating: (18 mos. - 3 yrs.) | |
| 18-24 mos. | | Child will be likely to dawdle and play with food.<br>Refuses food frequently<br>Little conversation at mealtime |
| 36 mos. | To pour well from a small pitcher | Blind child inserts index finger of other hand in top of glass to first knuckle and pours liquid until it touches his fingertip. |
| | Sleeping | |
| 0-3 mos. | | Sleep schedule is determined by child, but parents should:<br>Reduce noise, light, and stimulation by providing a private area away from others for the crib;<br>Be certain that child is dry and comfortable;<br>Change child's position from time to time; and<br>Keep crib sides up.<br>Intervals should increase from three to 10 hours. |
| 6-18 mos. | | Expect night awakenings and manage calmly. Causes may be wetness, teething, hunger, illness, etc.<br>Intervals should reach 10 to 12 hours. Number of naps (day) will vary and decrease. |

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| 18-36 mos. | To reduce naps to one a day in the afternoon<br>To go to bed easily<br>To display a sense of security and confidence in going to bed | Provide a variety of stimulating experiences and opportunity for appropriate exercise and play during the day.<br>Stay with child and share a quiet time. At this stage, demands for a drink, toilet, or taking a toy to bed may increase.<br>Awaking at night is usually associated with wetting the bed. |
| 25-36 mos. | To rest and play in bed when signs first appear that a nap is no longer needed | Child may set up a complicated ritual to follow before going to bed. He should become less dependent on taking toys to bed with him.<br>He should now begin to sleep all night without having to be picked up. |
| Birth - 1 yr. | Elimination<br>REMEMBER, THESE ARE GENERAL GUIDELINES FOR THE AVERAGE CHILD AND THERE MAY BE SIGNIFICANT DEVIATIONS FROM THEM AMONG "NORMAL" CHILDREN. | Patterns of bladder and bowel elimination become apparent and parents should be alert for clues that indicate either one. The child will best learn the difference between wetness and dryness by being changed as soon as possible when wet. |
| 18-30 mos. | To void if put on potty chair at regular times | Place child on chair at regular times and reward (praise) him when he uses it. Keep chair in bathroom and start the training when disruptions are at a minimum. |
| | To indicate wet pants or puddles | As success increases, child will begin to tell parents when wet. |
| | To indicate need, especially for bowel movement | Child should begin to wake dry from his nap |
| | To demonstrate both bowel and bladder control | It is not unusual for child to awaken and cry to be changed.<br>Child will have occasional daytime accident and will require help with dressing, wiping, etc. |

| Age Appropriate | Objective or Expected Behavior | Suggested Intervention/Counseling |
|---|---|---|
| | | The child will initially use the same word for both functions. He may hold out too long before indicating need. Frequency of urinating increases. Dress child in simple, easy to manage clothing. |
| | To verbally differentiate bladder functions most of the time | Verbal differentiation may begin at this stage but it usually will not be consistent. |
| | | Child should rarely have a bowel movement accident and will probably be dry all night. |
| 30-36 mos. | To increase time periods between eliminations | Child may begin to show resistance to toilet if taken frequently. This is a developmental behavior which will manifest when child is ready. |
| | To take responsibility for going to the toilet by himself | At this stage, the child usually responds to routine times and they are sufficient. |
| | | Child should go alone and this requires prior careful orientation to the bathroom for the blind child. |
| | | Child will need help with zippers and buttons and may not do a good job of wiping himself. |
| | | Boxer style pants or shorts are recommended to facilitate his personal management toward independence. |

## Body Awareness

The awareness of one's own body as separate and distinct from everything else and the growing perception of its relationship to the world around it begins at birth. While sighted children are able to observe those who care for them as well as their own bodies, blind children experience acute isolation and deprivation in this respect. Their contacts with others and the object world are limited to touch and sound and they are understandably slow in coming to realize that their hands, arms, feet, legs, etc., are a part of a body that is their own.

It is important that every opportunity be utilized to develop body awareness. Legs and arms should be moved during bath, dressing, and playtime, and the name of each body part should be said as it is touched.

According to many specialists in child development and early learning, the ability to move about efficiently and purposefully in the environment is a key factor in the development of many cognitive and academic skills. Movement is central to the development of perception which, in turn, is the key to early learning in academic areas such as reading, writing, and mathematics.

If movement is the key to perception and other cognitive development, then body awareness or body image is the key to movement. The body is the vantage point from which observations of the environment are made, the standard against which the physical or sensory disability may have inaccurate or incomplete awareness of his/her body, its physical dimensions, and its capability of movement, resulting in serious deficiencies in development and learning in other ways. However, deficiencies in body awareness and body movement skills can be reduced, corrected, or prevented through a systematic training program, particularly if such a program is carried out during the preschool development period. Such a program has been shown to be particularly effective with visually impaired youngsters.

One characteristic of many, if not most, training programs in body awareness is the use of some sort of doll or human figure effigy as a central aid. Such an effigy may be either two dimensional or three dimensional, and either life size or scaled down, but its primary purpose is to aid in teaching body proportions, and the positional and movement relationships among major body parts. While no set standards for the actual characteristics of the doll/effigy have been established to date, a brief analysis of its function may help the reader in choosing or designing such an aid for use in a program of systematic body image training.

Generally the doll will be used in teaching the location of various major body parts and their conformation, laterality, directionality, basic movement capability, and positional relationships of the body to objects in the environment (e.g., beside, behind, in front of, above, etc.). Following are some suggested characteristics a three dimensional teaching aid doll should have. It can be made more complex or elaborate, but elaboration is not likely to increase the effectiveness of the doll as a teaching aid.

1. The doll should be large enough to allow discrimination of all listed characteristics, but small enough to be easily manipulated by a young child. A 12" to 15" height is recommended.

2. Head

    a. Should be nearly round or egg-shaped.

   b. Nose, ears, and chin should be prominent.

   c. Eye locations may be indicated by slight depressions in the correct position.

   d. Hair (this may be omitted as redundant, since its only function here is to locate the top of the head, and other clues to this are present).

3. Torso

   This must include definite characteristics to differentiate front (chest, abdomen or stomach), back, buttocks, shoulders, waist.

4. Arms

   Should be detachable at the shoulders.

   a. Upper arm and forearm discernible.

   b. Elbow joint bending only one way (this, together with the shoulder, will cue laterality, even if arm is detached).

   c. Hand should at least have a thumb, and be slightly curved to indicate palm and back of hand (together these cue laterality if hand is detached at the wrist).

5. Legs

   a. Thigh and lower leg should be discernible.

   b. Knee joint bending in only one direction

   c. Feet - detachable at ankles; should be designed with laterality characteristics obvious even when detached, e.g., front of foot should be wider than the heel, and the inside edge should be longer than the outside edge.

6. Clothing should not be used because it adds a characteristic which is superfluous to the purposes stated above.

7. Head, arms, hands, legs, and feet should be detachable, but capable of easy reattachment by a young child.

In conclusion it may be stated that a systematic program can effectively increase the body awareness of preschool age visually impaired children, and is particularly useful with children who have no useful vision and those who are functioning at subnormal intellectual levels. Furthermore, a doll meeting the specifications listed above can be a useful teaching aid in such a program.

Chart 5

BODY AWARENESS

| Spatial Components | Tactual Stroking, etc. | Assisting Activities | Self-initiated Movements | Goal-seeking Behavior |
|---|---|---|---|---|
| Finger cones | Rubbing fingers against another object and against each other | Moving fingers | Finger tapping by the blind child | Striking piano keys, strumming guitar strings, tactual exploration of shapes |
| Arm-leg cones | Stroking limbs, touching limbs to each other | Moving arms and legs through range of motion | Controlled movements of arms and legs | Reaching out to touch objects with feet and with hands |
| Body surfaces | Stroking surfaces | Turning the infant in his crib | Self-induced rolling in the crib, on the floor | Turning to grasp an object which touches back |
| The body's vertical tube | Standing within a padded tube, rolling around vertical tube | Assisting in support for crawling, in standing | Self-induced standing | Standing to reach sound/object above head |
| The body's crawling tunnel | Crawling along padded channel | Assisting in crawling | Self-initiated crawling | Crawling to reach sound and/or object |
| The body's walking hallway | Walking along narrow padded channel, touching sides with body | Assist in walking | Self-initiated walking | Walking to reach sound and/or object goals |

From Cratty, Bryant J., Movement and Spatial Awareness in Blind Children and Youth, 1971, p. 23.
Courtesy of Charles C. Thomas, Publisher, Springfield, Illinois.

Name ____________________

Age _____years _____months

Date of Assessment _______

Self & Social Awareness
BODY AWARENESS

| Age Appropriate | Objectives | Response (+) | Response (-) | Response (o) |
|---|---|---|---|---|
| 3-4 yrs. | 1. To identify each part of the body by touching it as the name of the part is said orally | | | |
| | 2. To identify body parts of two in number, i.e., two feet, two ears, two eyes, etc., by touching them as the teacher names the body parts | | | |
| | 3. To participate in a variety of finger plays and action rhymes, i.e., count and present fingers to the tune of "Ten Little Fingers" | | | |
| | *4. To identify the function of body parts | | | |
| | 5. To identify parts and proportions verbally on mannequins and cardboard cutouts of children | | | |
| | 6. To demonstrate an awareness of the location of parts by identifying missing or misplaced parts | | | |
| | 7. To develop body awareness and position in space by performing correctly as teacher or song gives instruction | | | |
| | *8. To identify body planes by pointing to the front, back, right, and left sides of body upon teacher request | | | |
| | 9. To order named parts of the body in specified positions relative to other named parts of the body | | | |
| | 10. To order the whole or specified parts of the body in different positions with respect to a given object | | | |

Primary reference: Texas Media Center
Texas School for the Blind
Austin, Texas

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

*Not included in field testing

Self & Social Awareness
BODY AWARENESS

Objective #1:

To identify each part of the body by touching it as the name of the part is said orally

Suggested Materials:

Mats, mirror, blackboard, chalk

Activities:

1. Teacher gives instructions on identifying body parts. Teacher touches his body, then touches the identical body part of the child. Begin with gross body parts.*
2. On teacher direction, child will touch his own:

    - arch
    - *arm
    - armpit
    - calf
    - cheeks
    - chest
    - chin
    - ear
    - elbow
    - eyes
    - *face
    - finger
        - index
        - little
        - middle
        - thumb
    - fist closed
    - forearm
    - forehead
    - *hair
    - *hand
    - *head
    - heel
    - hip
    - knee
    - knuckles
    - leg
    - lips
    - *mouth
    - neck
    - *nose
    - palm
    - shoulders
    - *stomach (tummy)
    - teeth
    - thigh
    - *toes
    - tongue
    - waist
    - wrist

3. Child participates in teacher-led games such as "Simon Says" and "Do What I Do" in which body parts are located and named.
4. Teacher instructs child to lie down on the floor motionless. The child is then directed to move one body part at a time, i.e., "Pretend you are glued to the floor. The only part of you that you can move is your hand. Move your hand."

---

Objective #2:

To identify body parts of two in number, i.e., two feet, two ears, two eyes, etc., by touching them as the teacher names the body parts

Suggested Materials:

Mirror, small puppets; "Two Little" from Farina, Elbert M.; Furth, Sol H.; and Smith, Joseph M. Growth Through Play. Englewood Cliffs, New Jersey: Prentice Hall, 1959.

Objective #2 (continued)

Activities:

1. Teacher reviews body parts and discusses that certain body parts come in two's. Teacher and child together touch body parts that come in two's.
2. Child will touch his:

feet
arms
legs
hands
eyes
ears
sides
knees
cheeks
lips
shoulders

3. Repeat activity for Objective #1 paying attention only to body parts which are in pairs.
4. Children sing "Two Little," and touch body parts named.

### Two Little

Two little eyes that open and close,
Two little ears and one little nose.
Two little cheeks with rose shut in.
Two little lips and one little chin.
Two little elbows so dimpled and sweet,
Two little shoes on two little feet.
Two little shoulders so chubby and strong,
Two little legs running all day long.

---

Objective #3:

To participate in a variety of finger plays and action rhymes, i.e., count and present fingers to the tune of "Ten Little Fingers"

Suggested Materials:

A piano, records, tiny puppets--One Hundred Finger Plays
The Michigan School for the Blind, Lansing, Michigan

Activities:

1. Teacher sings the song "Ten Little Fingers" to the children. Children repeat till they learn the song. (The song is sung to the tune of "Ten Little Indians.") Students count and present fingers.
2. Each child presents the appropriate finger at the appropriate time as he sings "Ten Little Fingers."

Objective #3

Activities (continued)

3. Teacher leads children in finger plays and action rhymes.
   Finger Games: Each finger is given a name, the term for the finger or something as in the Thumbkin game, e.g., pointer, pinkie.
4. Teacher makes finger puppets and gives each a name, i.e., pointer, pinkie, etc. Each child wears a puppet on the correct finger while singing:

**Where is Thumbkin?**

Where is Thumbkin? Where is Thumbkin?
Here I am.
How are you today, Sir?
Very well, I thank you.
Run away. Run away.

Where is Pointer? . . .
Where is Tallman? . . .
Where is Pinkie? . . .
Where is Ring Man? . . .

5. Children sing and point to named body parts

**My Body**

Here are my eyes,
Here is my nose,
Here are my fingers,
And here are my toes.
Here are my eyes open wide,
Here is my mouth with my teeth inside
Here is my tongue to help me to speak,
Here is my chin and here are my cheeks,
Here are my hands that help me to play,
Any here are my feet that run all day.

---

Objective #4:

To identify the function of body parts

Suggested Materials:

Body parts picture cards

Objective #4 (continued)

Activities:

1. Teacher names a body part and child gives its function, i.e., ears--to hear, legs--to move, walk, etc.
2. Teacher names a body action and child names body part performing the action.
3. Child selects a picture card with a body part, identifies and gives its use.

---

Objective #5:

To identify parts and proportions verbally on mannequins and cardboard cutouts of children

Suggested Materials:

A doll, cardboard cutouts of children, paper dolls, wrapping paper, crayons, various items of clothing

Activities:

1. Teacher asks child to identify specific parts of the doll.
2. Child finds his nearest or same configuration, i.e., doll's feet and child's own feet, verbalizing while identifying parts and proportions.
3. Child identifies body parts on outline drawing of himself. Child may draw in specific parts such as eyes, nose, etc.
4. Child draws his eyes, feet, or other body parts, threads the cut-out form, and hangs them.
5. Child compares size of his prints with others.
6. Child puts items of clothing on a mannequin as directed by teacher, i.e., "Put the shoes on the doll's feet."
7. Teacher and children discuss body parts. Teacher begins to draw a body on the blackboard. Each child has a chance to suggest a part and show where to put it.

---

Objective #6:

To demonstrate an awareness of the location of parts by identifying missing or misplaced parts

Objective #6 (continued)

Suggested Materials:

Peabody mannequin, clay model, or doll with removable limbs, puzzles

Activities:

1. Teacher removes various parts of the figure and child must identify what parts are missing.
2. Using Peabody mannequin or clay model, child identifies missing or misplaced parts.
3. Using doll boards and puzzles, child identifies missing or misplaced parts: head, arms, feet, toes, fingers, eyes, nose, mouth, hair, legs.

---

Objective #7:

To develop body awareness and position in space by performing correctly as teacher or song gives instruction

Suggested Materials:

Record player, records or piano

Activities:

1. Teacher or song gives instruction as teacher and children perform, i.e., "Put your hands on top of your head."

   (Hokey Pokey) "Put your _____(left, right) ______(arm, toe) out (in).
   (Bunny Hop) "Put your foot out to one side. Jump forward three times."
   (Hap Palmer Records) "Bend down and touch your feet."
   (Looby-Lou) "I put my right hand in, I take my right hand out. . .turn myself about. . ."
   (Simon Says) "Simon Says, touch your ears."
   "If You're Happy and You Know It"

2. Children play circle games:
   a. Children hold hands and go on a "walk" (while staying in place), and teacher tells an action story for all to follow and move appropriately; e.g., "Let's take a walk to the park. Put on your coats. Reach up with your right hand and shut off the classroom lights, etc."
   b. Children take turns pretending to be different moving objects for others to guess, i.e., spin around and around for a top, pop up and down for a toaster.

Objective #7

Activities (continued)

3. Teacher asks the children to move a specified body part in many ways, e.g., "How many ways can you move your head?" (Nod, up and down, in circles, side to side.)
4. Teacher asks children to perform a specific movement, then asks, "What parts of your body did you move just now?"

Objective #8:

To identify body planes by pointing to the front, back, right, and left sides of body upon teacher request

Suggested Materials:

Mat

Activities:

1. Teacher gives instructions on identifying body planes. On teacher direction, child touches his front, back, right and left sides.
2. Child rolls on a mat, pausing on his front, back, and sides to identify what plane is on the mat.

Objective #9:

To order named parts of the body in specified positions relative to other named parts of the body

Suggested Materials:

Mirror

Activities:

1. Teacher practices with children by reciting orders of relation and position. Children do as instructed, i.e., "Put your hands in front of your body."

## Objective #9

Activities (continued)

Teacher says to the child:

Lie down
Roll over
Stand up
Put your hands in front of your body
Put your hands behind your head
Hold up your left hand
Put your hand above your head
Put your hands higher than your head
Shake your right foot
Touch the bottom of your foot
Put your finger in the center of your forehead
Place your hand near your hair

Put your hands below your chin
Put your hand under your arm
Put your hands next to each other
Now put your hands far from each other
Put your hand on top of your head
Put your hands beside your ears
Put your finger inside your mouth
Put your hands together
Now put your hands away from your nose
Take one step backward
Take one step forward
Take one step sideways

---

## Objective #10:

To order the whole or specified part of the body in different positions with respect tc a given object

Suggested Materials:

Book, chair, table, pegboard, rules, box, cardboard with cut-out hole

Activities:

1. Teacher discusses positions with children; students are directed to place themselves in front of a carton, under it, in it, behind it. Teacher says to child:

Stand in front of me
Stand so your back is to me
Turn so your whole body is facing me
Put the chair behind you
Put the chair so it is on your right
Place yourself to the left of the desk
Touch the wall with the bottom of your foot
Put the book down
Put your foot up on the chair

Stand close to the chair
Stand beside the chair
Move away from the chair
Walk across the room
Push the tricycle backward
Push the tricycle forward
Push the chair sideways
Put your hand beneath the table
Stand on top of the book
Move your foot toward the piano

Objective #10

Activities (continued)

Put the book under the table
Place your self in the center of the bench
Stand (sit) near the table
Stand (sit) far from the table
Place yourself underneath the table
Put your hand in the box
Take your hand out of the box
Put your finger through the hole in the box
Walk around the chair

2. Child positions himself with respect to objects around room. Other children report positions, i.e., Billy is under the table; Jane is on top of the ladder.
3. Children play hide and seek game. Child hides and children report positions as hider is found.

American
TOOL
CHEST
for junior carpenters
ICE CREAM
ICE CREAM

Name ____________________

Age _____years _____months

Date of Assessment _______

Self & Social Awareness
SOCIAL EDUCATION AND CITIZENSHIP

| Age Appropriate | Objectives | Response (+) | (-) | (o) |
|---|---|---|---|---|
| 3-4 yrs. | 1. To demonstrate appropriate concern for the common good by following directions in the classroom, hall, library, and playground<br>2. To demonstrate social responsibility by participating in the development and execution of classroom and school standards<br>3. To demonstrate the awareness of school standards and simple community rules by identifying them<br>4. To demonstrate awareness of personal rights and privileges within the group by participating positively in group and individual activities<br>5. To recognize and show respect for the rights of others by observing rules of courtesy, i.e., keeping hands to themselves, not shoving or pushing, accepting others in activities, etc.<br>6. To demonstrate courtesy toward classmates by listening to their contributions<br>7. To demonstrate tolerance and the ability to share by taking turns most of the time | | | |
| 4-6 yrs. | 8. To demonstrate appreciation or understanding of the feelings and purposes of others by responding to their contributions appropriately<br>9. To demonstrate an awareness of some immediate personal and group problems inherent in group living by accepting daily responsibility for caring for personal things and designated chores or items to benefit the whole group | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

| Age Appropriate | Objectives | Response (+) | Response (-) | Response (o) |
|---|---|---|---|---|
| | 10. To demonstrate a sense of fair play by participating in group activity as a leader or a follower | | | |
| | 11. To demonstrate responsibility for one's own possessions by caring for and labeling personal possessions | | | |
| | 12. To demonstrate concern for the group by identifying and caring for the property of others | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate appropriate concern for the common good by following directions in the classroom, hall, library, and playground

Suggested Materials:

Classroom objects, personal belongings

Activities:

1. Teacher discusses with the class rules that have been established for school behavior, why they have been established, and why they are necessary.
2. The child follows established directions:
    a. Places personal belongings in his cubby hole;
    b. Returns materials to proper place;
    c. Walks quietly in halls;
    d. Stays in area for playground; and
    e. Observes quiet, respectful behavior in the library.

---

Objective #2:

To demonstrate social responsibility by participating in the development and execution of classroom and school standards

Suggested Materials:

Chart paper

Activities:

1. Teacher initiates group discussions about class problems (e.g., interrupting, pushing, game playing, etc.).
2. She discusses them with children, suggesting correct behavior.
3. A chart can be made to illustrate class standards.

---

Objective #3:

To demonstrate the awareness of school standards and simple community rules by identifying them

Objective #3 (continued)

Suggested Materials:

Brightly colored pictures or drawings illustrating behavior and rules

Activities:

1. Teacher discusses standards of school and community and how they are established to protect or help the children rather than forbidding them to do certain things.
2. Each child identifies the following:
   a. Walk in school halls;
   b. Keep quiet in school halls;
   c. Do not throw snow or mud balls at building or other person;
   d. Cross only at corners;
   e. License bikes;
   f. Do not litter; and
   g. Do not play on busy streets.

---

Objective #4:

To demonstrate awareness of personal rights and privileges within the group by participating positively in group and individual activities

Suggested Materials:

Developing Understanding of Self and Others--Stories

Activities:

1. Teacher reads story illustrating individual rights within a group.
2. Children discuss story with teacher.
3. Teacher lists ways children can demonstrate awareness of rights and privileges in this class by:
   a. Participating in group discussions, i.e., "Show & Tell";
   b. Voting on decisions;
   c. Participating in group activities, i.e., art project to be displayed in school hall;
   d. Selecting items for own use during free time; and
   e. Correcting child who interferes with his behavior.

Objective #5:

To recognize and show respect for the rights of others by observing rules of courtesy, i.e., keeping hands to themselves, not shoving or pushing, accepting others in activities, etc.

Suggested Materials:

Commercial or teacher-made posters depicting good and bad manners

Activities:

1. Teacher leads class discussion on courtesy, i.e., what it means, examples of courtesy in school and at home.
2. Teacher makes chart as children list "courtesy hints," i.e., a courteous child will:
    a. Try to remember to say please and thank you;
    b. Listen while another child is talking; and
    c. Wait his turn in line.

---

Objective #6:

To demonstrate courtesy toward classmates by listening to their contributions

Suggested Materials:

Teacher-selected topical materials

Activities:

1. Teacher introduces class discussion topic.
2. Each child listens quietly while the other child is speaking and does not interrupt.

---

Objective #7:

To demonstrate tolerance and the ability to share by taking turns most of the time

Objective #7 (continued)

Suggested Materials:

Classroom objects, gym equipment

Activities:

1. Teacher presents selected class discussion topic.
2. Each child
    a. Waits his turn, or gets in line to use item;
    b. Gives item to another when his time is up;
    c. Does not keep other children from using item when two or more can play, read, etc.; and
    d. Does not attempt to take item (game, book, toy) from another child.

Objective #8:

To demonstrate appreciation or understanding of the feelings and purposes of others by responding to their contributions appropriately

Suggested Materials:

Teacher-selected topical materials

Activities:

1. Teacher introduces class discussion topic, showing materials to illustrate it and calling on individual children to discuss it or to tell their own similar experience, i.e., how they feel about it, what they would do, what they think will happen.
2. Each child
    a. Responds appropriately to other child (laughs at joke, sympathizes over problem, etc.); and
    b. Expands upon other child's contribution by relating similar experience, feeling, etc.

Objective #9:

To demonstrate an awareness of some immediate personal and group problems inherent in group living by accepting daily responsibility for caring for personal things and for designated chores or items to benefit the whole group

Objective #9 (continued)

Suggested Materials:

Classroom objects, personal possessions

Activities:

1. Teacher leads class discussion topic of care of personal things and of group-owned property, i.e., classroom objects.
2. Children name responsibilities involved in caring for classroom as teacher makes work chart.
3. Each child demonstrates understanding and acceptance by
   a. Taking care of personal belongings;
   b. Being responsible for cleaning up after himself;
   c. Sharing toys, books, games;
   d. Showing willingness to take turns by getting in line;
   e. Participating in activities for group when he would rather do something else; and
   f. Playing with child who is not his "best friend" when pair is required for group activity.

---

Objective #10:

To demonstrate a sense of fair play by participating in group activity as a leader or a follower

Suggested Materials:

Teacher-selected games

Activities:

1. Teacher permits all children to take turns being leaders of their team in selected activities, i.e., music, gym, art, games.
2. Each child:
   a. Follows the leader's direction when he is a team member;
   b. Gives every child a turn at activity when he is leader; and
   c. As leader, does not allow privileges to any one member that are not given to entire team.

---

Objective #11:

To demonstrate responsibility for one's own possessions by caring for and labeling personal possessions

Suggested Materials:

Personal possessions and tags

Activities:

1. Teacher discusses ways of identifying different categories of things children possess, i.e., clothes, toys, materials.
2. Children examine all items for label.
3. Teacher instructs in making and using appropriate labels.
4. Children discuss their responsibilities in caring for their things, i.e., having mother label each, putting in their locker, etc.
5. Each child:
   a. Keeps all possessions in his own cubby hole;
   b. Has name tag in all clothing; and
   c. Writes, or has his name written on all possessions brought into the class.

---

Objective #12:

To demonstrate concern for the group by identifying and caring for the property of others

Suggested Materials:

Classroom objects and personal possessions

Activities:

1. Teacher leads discussion about good citizenship in caring for our classmates and helping each other take care of personal possessions.
2. Each child
   a. Asks permission to play with and/or look at any possession another child brought into class;
   b. Uses equipment appropriately;
   c. Does not damage equipment or material purposely; and
   d. Places boxed material in correct area, making sure all pieces have been placed in box.

# intervention strategies

Name ____________________

Age _____ years _____ months

Date of Assessment ________

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | Free Play<br>1. To demonstrate an awareness of the need for cooperation with peers by playing cooperatively and considerately during free play time and group activities<br>2. To demonstrate the ability to select meaningful activities independently by choosing from several activities during free play time, i.e., beads, puzzles, blocks, dolls, tricycle, slide, etc.<br>3. To develop an enjoyment of sharing a meaningful learning experience with an adult by working with a teacher on a one-to-one basis during free play time | | | |
| 5-6 yrs. | 4. To develop a sense of curiosity by leisurely browsing through and choosing juvenile books and records | | | |
| 4-5 yrs. | Calendar<br>5. To demonstrate the understanding of left-right progression by arranging the dates on the calendar in order from left to right<br>6. To display an understanding of the concept of "column" as used on the calendar by identifying the series of days comprising a column<br>7. To demonstrate the developing concepts of holidays, seasons, and seasonal activities associated with each month of the year | | | |
| 5-6 yrs. | 8. To demonstrate an understanding of the calendar by naming the correct day, date, and month in group review | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
PRESCHOOL DEVELOPMENTAL

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 5-6 yrs. | 9. To identify numerals 1 through 31 by selecting the correct numerals to represent the date on the calendar (Note: child selects from a group of dates covering the dates of the current week) | | | |
| 3-4 yrs. | Group Activities<br>10. To respond appropriately to auditory cues by listening to records and performing the actions described<br>11. To participate in group games involving listening to directions, following rules, having fun, and learning to lose gracefully | | | |
| 4-5 yrs. | Exercise (Group Activity)<br>12. To indicate an understanding of such basic concepts as on, in, over, under, beside, and behind by placing any given object in that position relative to another given object | | | |
| 3-4 yrs. | 13. To develop large muscle coordination by participating in directed exercise activities, i.e., hopping, jumping jacks, balance beam | | | |
| 4-6 yrs. | Weather<br>14. To display an awareness of the weather by selecting appropriate clothing for the "weather bear" | | | |
| 3-4 yrs. | Snack<br>15. To display acceptable snack time behavior by practicing polite table manners, tasting new foods before rejecting them, and taking responsibility for cleaning up | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | Rest<br>16. To indicate an understanding of the purpose of rest time by resting quietly for the duration of the period | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

## DAILY SCHEDULE

Chart 6

## MINIMUM BEHAVIOR ANALYSIS

| Developmental Age | 9:00 Arrival - Free Play | Individual and Small-Group Teacher-Directed Activities | 9:55 Clean-up | 10:00 Group Activity: Discussion, Finger Plays, Singing |
|---|---|---|---|---|
| 2-3 years | Can walk alone<br>Uses hands to reach, grasp, crumple, bang and splash<br>Takes off jacket with assistance<br>Makes choice of two alternatives<br>Is curious and busy | Names common objects<br>Imitates teacher on direction<br>Responds by action to request or command<br>Responds to two simple commands | Puts things away independently | Imitates gestures and facial expressions |
| 3-5 years | Initiates own play<br>Exhibits independence in making choices | Makes transition between active and quiet situations<br>Responds to directions on first request | | Begins to use words to express feelings<br>Verbalizes simple experiences and emotions<br>Begins to ask questions |

| | 10:20 Snack Time | 10:35 Art | 11:00 Storytime | 11:20 Gross Motor Activities |
|---|---|---|---|---|
| 2-3 years | Eats finger foods<br>Drinks from a cup<br>Attempts to wash own hands | Finger painting<br>Expresses pleasure in tactual experiences | Sits quietly<br>Shows interest in books | Can walk alone<br>Begins to run and jump<br>Uses hands to reach, grasp, crumple, bang, and splash<br>Imitates gestures and adults actions<br>Responds by action to request or command |
| 3-5 years | Little spilling in self-feeding<br>Washes and dries own hands and face<br>Accepts responsibility for one task, i.e. passing napkins, cookies<br>Clears and cleans table | Follows directions<br>Participates in planned activities<br>Selects art materials for free expression | Listens to stories and poems<br>Responds to discussion | |

| | 11:40 Free Play With Adult Intervention | 11:55 Clean-up (Younger children go home) | 12:00 Lunch | 12:30 Readiness Activities |
|---|---|---|---|---|
| 2-3 years | Exhibits independent movement | Performs assigned task<br>Puts own things away | | Listens to stories |
| 3-5 years | Exhibits independent choice<br>Shares with chosen peer | | Shares responsibility for preparing table<br>Uses bathroom independently<br>Washes hands independently<br>Eats independently | Categorizes, i.e. animals, foods<br>Can match 8-10 forms<br>Verbalizes simple experiences<br>Expresses feelings about experiences<br>Relates and understands sequence |

| | 1:00 Stories, Dramatization, Free Play, Outdoors |
|---|---|
| 3-5 years | Chooses or accepts role in role playing<br>Exhibits independence in making choices<br>Initiates own play<br>Plays well in group |

Category: Free Play

Objective #1:

To demonstrate an awareness of the need for cooperation with peers by playing cooperatively and considerately during free play time and group activities

Suggested Materials:

A classroom full of toys and games, arranged in areas (doll corner, blocks and large trucks, game shelves, sand table, etc.)

Activities:

1. Children are free to select meaningful activities independently.
2. Children share materials and equipment.
3. Children work alone or in small groups without direct teacher supervision.
4. Children assist with cleaning up at the completion of play time.

---

Objective #2:

To demonstrate the ability to select meaningful activities independently by choosing from several activities during free play time

Suggested Materials:

Classroom toys and games

Activities:

During free time, children are aided as needed in choosing a suitable activity with increasing encouragement to select one independently.

---

Objective #3:

To develop an enjoyment of sharing a meaningful learning experience with an adult by working with a teacher on a one-to-one basis during free play time

Objective #3 (continued)

Suggested Materials:

Classroom games, toys, and teaching materials

Activities:

Teacher requests that child spend short time daily on one-to-one activity of his choice.

---

Objective #4:

To develop a sense of curiosity by leisurely browsing through and choosing juvenile books and records

Suggested Materials:

A classroom full of books, toys, records, games, audio equipment (phonograph, tape recorder)

Activities:

1. Teacher provides the opportunity for children to listen to choice of records, select particular books, and work through problems which may arise.
2. Children work mainly without direct supervision in independent activities of their choice.

---

Category: Calendar

Objective #5:

To demonstrate the understanding of left-right progression by arranging the dates on the calendar in order from left to right

Suggested Materials:

Large wall calendar, large numerals 1 to 31

Objective #5 (continued)

Activities:

1. Teacher indicates left to right ordering of dates on calendar each week.
2. Teacher asks children to indicate the placement of the next date.

Objective #6:

To display an understanding of the concept of "column" as used on the calendar by identifying the series of days comprising a column

Suggested Materials:

Same as Objective #5

Activities:

As each date is placed on calendar, the teacher indicates the column it is in and discusses what day it is.

Objective #7:

To demonstrate the developing concepts of holidays, seasons, and seasonal activities associated with each month of the year

Suggested Materials:

Same as Objective #5. Photographs, articles relevant to the season being discussed, magazine pictures

Activities:

1. Teacher gives brief description of season or holiday, and child names it.
2. Teacher names holiday or season and describes weather, celebrations, etc.
3. Teacher teaches songs, dances, and games associated with the season or holiday.
4. Teacher helps class plan and cook menu for holiday.

Objective #8:

To demonstrate an understanding of the calendar by naming the correct day of the week, month, and date in group review

Suggested Materials:

Large wall calendar with empty 4" by 4" blocks, large numerals 1 to 31, labels at top of column for days of week, name of month at top in very large letters

Activities:

1. Teacher daily indicates day, date, and month.
2. Song about day, date, and month is sung daily.
3. Teacher discusses time concepts of yesterday, today, and tomorrow.

---

Objective #9:

To identify the numerals from 1 to 31 by selecting the correct numeral to represent the date on the calendar

Suggested Materials:

Same as Objective #5

Activities:

1. Teacher selects numerals to be placed on calendar.
2. Teacher helps children choose numerals to be placed on calendar.

---

Category: Group Activities

Objective #10:

To respond appropriately to auditory cues by listening to records and performing the action described

Objective #10 (continued)

Suggested Materials:

Musical instruments or voice cues, Hap Palmer Record Albums: Learning Basic Skills Through Music; Getting to Know Myself

Activities:

1. Child responds to auditory cues from teacher in a one-to-one or small-group setting, i.e., drum beat signals stand up, triangle signals sit down.
2. Child demonstrates basic skills in following musical activities:

| | Learning Basic Skills Through Music | | Getting to Know Myself |
|---|---|---|---|
| Side 1: | Colors | Side 1: | Touch |
| | Put Your Hands in the Air | | The Circle |
| | The Number March | | Turn Around |
| Side 2: | What Are You Wearing? | Side 2: | Circle Game |
| | What Is Your Name? | | Left and Right |
| | | | The Opposite |

Objective #11:

To participate in group games involving listening to directions, following rules, having fun, and learning to lose gracefully

Suggested Materials:

Hap Palmer Record Albums: Learning Basic Skills Through Music; Getting to Know Myself
Circle painted or taped on floor
A book of listening games for preschoolers

Activities:

1. Child listens to songs on record and performs exactly to directions.
2. Teacher directs games involving emphasis on listening (to rules, directions, etc.).

Category: Exercise

Objective #12:

To indicate an understanding of such basic concepts as on, in, over, under, beside, and behind by placing a given object in that position relative to another given object

Suggested Materials:

A large cardboard box with a large F on the front
A block, feather, or other small object
Circle painted or taped on floor
Body movement records to accompany movements
Spatial relationship picture cards (DLM)

Activities:

1. Teacher asks child to place himself or the object "in front of the box," or "in the box," or "under the box," etc.
2. Child moves his body into various relationships with classroom objects, e.g., on the rug, under the table, on the chair, over the balance beam, etc.
3. Teacher directs child to put one foot in the circle, or to stand outside the circle, etc.
4. Teacher shows child picture cards and asks him to identify the spatial relationship pictured, i.e., car in or next to a garage, a girl under or next to a bed, etc.

---

Objective #13:

To develop large muscle coordination by participating in directed exercise activities

Suggested Materials:

Hap Palmer Records: Learning Basic Skills Through Music; Getting to Know Myself
Helpful to have circle painted or taped on floor

Activities:

1. Teacher directs and leads group in the following:
    a. Stand and hop on either foot;

Objective #13:

Activities (continued)

b. Perform jumping jacks;
c. Touch toes without bending knees;
d. Galloping, skipping, marching;
e. Body movements, i.e., put your hand on your knee;
f. Play "Simon Says" following teacher directions (2 and 3 year olds); and following teacher's as well as another child's directions as leader (3 to 5 year olds).

---

Category: Weather

Objective #14:

To display an awareness of the weather by appropriately dressing the "weather bear"

Suggested Materials:

Shape of bear on bulletin board, various clothing to put on bear: raincoat, boots, and umbrella; winter coat, boots, and hat; short pants, light shirt; long pants, sweater

Activities:

1. The teacher pins the "weather bear" (an unclothed paper bear cutout) to a bulletin board.
2. Group discusses weather and proper clothing required, and together decides what outfit bear should wear that day.
3. Children select appropriate-to-the-season paper clothing cutouts and pin them to the bear.

---

Category: Snack

Objective #15:

To display acceptable snack behavior by practicing polite table manners, tasting new foods before rejecting them, and taking the responsibility for cleaning up

Objective #15 (continued)

Suggested Materials:

Foods served at snack time

Activities:

1. Children take turns passing out the napkins.
2. Children have responsibility for throwing away own napkin and rinsing out own cup.
3. Teacher encourages child to taste new foods.

---

Category: Rest

Objective #16:

To indicate an understanding of the purpose of rest time by resting quietly for the duration of the period

Suggested Materials:

Small mats or rugs for each child, records of quiet music to be played while children rest

Activities:

1. Child gets own mat and chooses own area for resting away from other children.
2. Child will rest or select a quiet activity such as puzzles or books.
3. When rest time is over, child takes own mat back to stack in corner.

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Cognitive/Creativity
LANGUAGE ARTS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | 1. To demonstrate the ability to express feelings, beliefs, aspirations, observations, and experiences by doing so orally in the classroom setting, i.e., relate sequence of field trips, describe places, etc. | | | |
| | 2. To develop the ability and willingness to listen to others by listening to ideas expressed by each in turn | | | |
| | 3. To demonstrate the ability to follow and give simple directions by following routine instructions and assuming responsibility for giving them | | | |
| | 4. To demonstrate increasing vocabulary, correct usage, and expanded sentence patterns by recognizing and using additional words encountered in new experiences, i.e., field trips | | | |
| | 5. To demonstrate an appreciation for poems and stories read aloud by participating in library story time, selecting books, dramatizing favorite stories, etc. | | | |
| | 6. To demonstrate discrimination of different consonant and vowel sounds in the context of spoken words by selecting those that start with the same sound | | | |
| | 7. To demonstrate knowledge of the alphabet by recognizing and naming the letters of the alphabet in sequence | | | |
| | 8. To demonstrate knowledge of the alphabet by writing the letters of the alphabet in sequence | | | |
| | 9. To demonstrate recognition of written forms of familiar words by reading classroom labels and traffic signs | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
LANGUAGE ARTS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-6 yrs. | 10. To develop an appreciation for oral language experiences with poetic sound and rhythm by reciting rhymes and poems and responding appropriately to a variety of games designed to promote appreciation for language | | | |
| | 11. To demonstrate an expanding interest in enrichment resources by responding to a variety of materials and books available | | | |
| | 12. To demonstrate comprehension of story and detail by locating details, perceiving relationships, identifying opposites, recognizing ideas stated in different words and recalling sequences | | | |
| | 13. To demonstrate the ability to distinguish fantasy from reality by identifying make-believe characters in familiar stories | | | |
| | 14. To demonstrate an interest and response to literature by performing related art activities, pantomime, and dramatization | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate the ability to express feelings, beliefs, aspirations, observations, and experiences by doing so orally in the classroom setting, i.e., relate sequence of a field trip, describe places, etc.

Suggested Materials:

None

Activities:

1. Teacher and class plan for field trip.
2. After trip, teacher asks the children to tell about the visit, including: a) sequence of trip, b) description of place, c) name of host (i.e., station chief) and to describe him, d) description of what firefighters do.
3. Teacher asks children if they would like to be firefighters, etc.
4. Using classroom situations or story, the teacher questions the children--asks how they would feel in a similar situation; e.g., child refuses to let other child play with toy--a) "Do you think that is a nice thing to do?" b) "How would you feel if Carol didn't let you join in the game?"
5. "Tommy and the Circus Parade:" a) Teacher asks: "Do your brothers and sisters ever treat you like that?" "How do you feel?" b) "If a man asked you to ride on an elephant, would you do it?" "How would you feel?" "Why not?" c) "Have you been to a circus?" "What happens at the circus?" "Would you like to be a performer?" "Which one?"

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Objective #2:

To develop the ability and willingness to listen to others by listening to ideas expressed by each in turn

Suggested Materials:

Various articles child brings to class

Activities:

1. Teacher asks each child to describe an article brought to class. The other children should listen to the description. Children should be encouraged to describe the functional aspects of the article. All then take turns describing their own article.

Objective #2:

Activities (continued)

2. In a group meeting, the teacher encourages all children to relate any problems they have encountered and to discuss possible behaviors and solutions.

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Objective #3:

To demonstrate the ability to follow and give simple directions by following routine instructions and assuming responsibility for giving them

Suggested Materials:

Classroom objects

Activities:

Teacher asks children to a) "Hang up your coat," b) "Please shut the door, and sit down at the table," c) "Get the puzzle box," d) "Take two envelopes," e) "Complete all the alphabet puzzles," f) "Return the paper and pencils, put your mat back, wash your hands, and then come to the table for snack."

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Objective #4:

To demonstrate increasing vocabulary, correct usage, and expanded sentence patterns by recognizing and using additional words encountered in new experiences, i.e., on field trips

Suggested Materials:

Pictures and objects of people in various job-related costumes, animals, machinery; books, and classroom objects

Activities:

1. Teacher arranges field trips to various school functions and places in the community presenting a basic vocabulary of related words, e.g., cafeteria:

Objective #4:

Activities (continued)

menu, dietician; fire station: siren, safety, engine; bazaar: bazaar, donate, contribute.

2. Using story time, the teacher reads stories which use synonyms for words and ideas the child already has, or new words for ideas or objects introduced in story, e.g., "Peter Rabbit," garden, fear, cottontail, hoe, rake, plant.
3. Teacher asks child to identify new objects or places around school environment: principal, office, fire alarm, chalk, sharpener, trapeze, gym, secretary, cubby hole.
4. Teacher uses acquired vocabulary words as a measure of child's ability to use them in speaking or directing instead of substituting pronouns or adverbs, e.g., "I'll put the box in the cubby hole;" "She went to the office."
5. Teacher directs children to verbalize each spoken response in sentence form, and to use adjective or adverb phrases rather than a series of simple sentences. This process should be incorporated into all class activities, e.g., "Yes, it is 9:00" (not "9:00"). "The answer is four" (not "4"). "When we put the water on the hot plate and turned it on, the water got hot" (not "We put it on there. We turned it on. Then it got hot").

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Objective #5:

To demonstrate an appreciation for poems and stories read aloud by participating in library story time, selecting books, dramatizing favorite stories, etc.

Suggested Materials:

Selected books of poetry and narrative

Activities:

1. Teacher takes children to the library to select books for story time, having all select their own books after the librarian's synopsis.
2. Teacher provides opportunity for dramatizing the child's favorite story, poem, or song.
3. Librarian permits children to take turns selecting a book for story time.

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Objective #6:

To demonstrate discrimination of different consonant and vowel sounds in the context of spoken words by selecting those that start with the same sound

Objective #6 (continued)

Suggested Materials:

Pictures of variety of objects; "Beginning Sounds"

Activities:

1. Using a group of pictures, the teacher asks children to select those whose names start with the same sound.
2. Teacher demonstrates the "Beginning Sounds" game involving matching twelve cards to three initial consonant sounds.
3. Teacher gives the child a CVC word and asks him to say other words that begin the same way.

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Objective #7:

To demonstrate knowledge of the alphabet by recognizing and naming the letters of the alphabet in sequence

Suggested Materials:

Cards with letters of the alphabet in large print and braille

Activities:

1. Teacher presents the "Alphabet Song."
2. Teacher plays this game with children: "What letter comes after ____?"
3. Teacher gives the children picture cards, one for each letter of the alphabet, (apple for A, goat for G), with the word written under the picture, and asks them to put them in alphabetical sequence.
4. Teacher reviews how to arrange all of the alphabet letter cards in order, and the children practice it in turn.

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Objective #8:

To demonstrate knowledge of the alphabet by writing the letters of the alphabet in sequence

Objective #8 (continued)

Suggested Materials:

Same as Objective #7, paper, pencil

Activities:

1. Teacher reviews formation of letter groupings and instructs the child to write the letters of the alphabet on the worksheet.
2. Teacher asks the child to make an alphabet board, writing the letters and pasting a picture for each letter under the letter.

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Objective #9:

To demonstrate recognition of written forms of familiar words by reading classroom labels and traffic signs

Suggested Materials:

Signs in classroom on furniture, fixtures; children's names on "Star of the Day" chart

Activities:

1. Teacher labels classroom furniture and fixtures with printed and brailled name identification.
2. Teacher gives all children three cards naming the classroom furniture and fixtures and helps them match them to cards on items in the room. Three at a time are added until children can match all of them.
3. Teacher uses set of labels for classroom furniture and fixtures to ask the child to name each item.
4. Children read the name of the child who is the "Star of the Day."
5. Teacher will help the children to read the name aloud with the card attached: door, table, chair, slide, curtain, phonograph, window, light switch, name on cubby hole, music center, mirror, blackboard, easel.
6. Child will match all label cards to those in the room.
7. The child will respond with the correct word for printed label.

## Objective #10:

To develop an appreciation for oral language experiences with poetic sound and rhythm by reciting rhymes and poems and responding appropriately to a variety of games designed to promote appreciation for language

Suggested Materials:

Poems, nursery rhymes, "Fun with Rhymes"

Activities:

1. Teacher recites children's nursery rhymes, having children clap, stamp, or march out beat.
2. Teacher reads poems aloud to children, omitting the ending rhyme, e.g., "He swam in the sea so green, then went to court to visit the q____."
3. Teacher demonstrates "Fun with Rhymes"--and plays it with children. This game involves statement of a word to rhyme with a pictured object.
4. Teacher asks, a) children to listen to poems of daily experience ("A Whistle," "Swinging") or nonsense poems (e.g., Dr. Seuss), b) children to write or dictate their own poems about an event, something they like to do, etc.

## Objective #11:

To demonstrate an expanding interest in enrichment resources by responding to a variety of materials and books available

Suggested Materials:

Books, charts, experience pamphlets, tape recorder, paper, and crayons

Activities:

1. Having a variety of appropriate material in the class, the children can select book or material to read or to have read to them.
2. Children visit school and local libraries under supervision of teacher.
3. Children are encouraged to tell a favorite story to a tape recorder and illustrate story with their own drawings.

Objective #12:

To demonstrate comprehension of story and detail by locating details, perceiving relationships, identifying opposites, recognizing ideas stated in different words and recalling sequences

Suggested Materials:

"Opposites," "See-quees;" book with illustrations; flannel board figures
Eastman, P.D. Are You My Mother? New York: Beginner Books, Inc., 1960

Activities:

1. Teacher presents "Opposites" game involving selection of pairs of opposites, e.g., big/little: shoe, boat, animal.
2. Teacher presents Judy's "See-quees," requiring putting a familiar story pictured on cards in sequence.
3. Teacher reads an illustrated story to the child: a) child listens to teacher read story and points to or verbalizes details in response to teacher's questions; b) "What was the story about?" c) "What happened?" d) "How did he feel?" e) "What words tell you that?" f) "Can you find the page where that happened?" g) "How did he feel at the end of the story?"
4. Child pairs six sets of opposites correctly at teacher request.
5. Child answers questions correctly, e.g., Are You My Mother? a) Why did the mother bird leave her baby? b) Why did the baby bird leave the nest? c) Did the baby bird find his mother easily?

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Objective #13:

To demonstrate the ability to distinguish fantasy from reality by identifying make-believe characters in familiar stories

Suggested Materials:

Books and stories of fairy tales, nonsense rhymes, children, family life

Activities:

1. Teacher asks the children about some familiar stories and characters and encourages them to determine if the event or character was real or make-believe or if such a thing really could happen:
    a. The Emperor's Clothes
    b. Loudest Noise
    c. Cat in the Hat
    d. Snowy Day
    e. Timothy Turtle
    f. Emily Emerson's Moon
    g. Whistle for Willie
    h. How Things Work

Objective #13

Activities (continued)

   i. Peter Rabbit
   j. Freddy the Detective

2. The child responds with correct answer: (a) Fantasy, (b) Fantasy, (c) Fantasy, (d) Fact-possible, (e) Fantasy, (f) Fact-possible, (g) Fact-possible, (h) Fact, (i) Fantasy, (j) Fantasy.

Objective #14:

To demonstrate an interest and response to literature by performing related art activities, pantomime, and dramatization

Suggested Materials:

Art materials, selected stories, costume box

Activities:

1. Teacher asks children to illustrate an event from story read to them, or that they have read.
2. Teacher asks children to select different roles from the story or narrative and "act out" their story.

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Cognitive/Creativity
MATHEMATICS

| Age Appropriate | Objectives | Response (+) | Response (-) | Response (o) |
|---|---|---|---|---|
| 3-4 yrs. | *1. To sort objects according to physical attributes | | | |
| | *2. To demonstrate understanding of the concept of a set as a collection of objects by identifying and grouping them as "sets" upon request | | | |
| | 3. To demonstrate the ability to match objects one-to-one by arranging or dividing sets of two objects appropriately | | | |
| | 4. To demonstrate the ability to order elements in a set by arranging them according to physical size and quantity | | | |
| | 5. To identify specific space in student's surroundings by returning materials as directed, following instructions to place objects in a given place, etc. | | | |
| | 6. To identify geometric shapes by naming appropriately circle, square, triangle, rectangle, half-circle, and hexagon | | | |
| | 7. To identify geometric forms by describing each in terms of circles, straight lines, curves, etc. | | | |
| | *8. To demonstrate the ability to reproduce a simple pattern by copying a model | | | |
| | 9. To count to 10 in practical situations | | | |
| | *10. To count the number of objects in a given set and to construct another set of from 1 to 10 objects on teacher request | | | |
| 4-6 yrs. | 11. To identify data on a simple graph by selecting appropriate weather symbols, calendar dates, etc. | | | |
| | 12. To identify numerals from 0 to 10 by reading them in sequence on cards or charts | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

* Not included in field testing

Cognitive/Creativity
MATHEMATICS

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | 13. To demonstrate understanding of numerical order by arranging sets of objects or numerals from 1 to 10 | | | |
| | 14. To identify sets with more, less, or the same number as a given set | | | |
| | 15. To identify what number comes before or after a given number, or between two numbers from 1 to 10 | | | |
| | 16. To demonstrate understanding of ordinal numbers by selecting the first, second, third, last item of a group | | | |
| | 17. To count to 30 or further using unit markers as needed | | | |
| | 18. To identify numerals 1 to 30 or above by reading them in sequence on cards or charts | | | |
| | 19. To recognize sets through 10 by identifying items in groups | | | |
| | *20. To demonstrate understanding of vocabulary associated with math | | | |
| | *21. To demonstrate use of vocabulary related to time by naming days of week and relating experiences to appropriate time period, i.e., morning, afternoon, night | | | |
| | *22. To identify measuring instruments | | | |
| | *23. To demonstrate the ability to write numerals from 1 to 30 | | | |
| | 24. To demonstrate the ability to add facts through 10 | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

* Not included in field testing

Objective #1:

To sort objects according to physical attributes

Suggested Materials:

Variety of materials, textures, blocks, etc.

Activities:

1. Teacher gives child a box of objects to group as he wants. Discuss the grouping.
2. Teacher gives child several objects and asks him to find ones that are alike in some way.

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Objective #2:

To demonstrate understanding of the concept of a set as a collection of objects by identifying and grouping them as "sets" upon request

Suggested Materials:

A variety of materials

Activities:

1. Teacher introduces the term "set" when referring to a group of objects. Show various size groups of objects, i.e., three blocks. Teacher says, "This is a set of _____ (blocks)." Repeat activity using different items and reinforce the use of "sets of" in naming each collection.
2. Teacher gives the child a set of similar objects and asks him to find other members.
3. Teacher gives child a variety of objects to divide into two sets, i.e., animals and blocks. Child divides the objects and names the sets.

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Objective #3:

To demonstrate the ability to match objects one-to-one by arranging or dividing sets of two objects appropriately

Objective #3 (continued)

Suggested Materials:

Any small objects for counting, i.e., blocks, beads, buttons
Snack materials, i.e., napkins, cups, cookies
Instruments, small cans, felt squares

Activities:

1. Child counts out one-to-one (here's one for you and one for me).
2. A child places one napkin and one cup for each child.
3. A child selects one instrument for each child in rhythm band.
4. Child matches sets of objects containing same number of members, e.g., a) balloons for children, b) flowers for stems on worksheet, c) milk cartons for paint color number, d) gloves for hands.
5. Child puts correct number of objects into appropriate can, each having a given number of felt squares pasted on it.
6. Teacher shows child a set of objects, and asks him to find other sets that are equivalent (reinforce use of the word "equivalent" in referring to sets with same number of members).
7. Teacher makes row of buttons and asks child to make row with same number of buttons.

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Objective #4:

To demonstrate the ability to order elements in a set by arranging them according to physical size and quantity

Suggested Materials:

Montessori Cylinders
Cuisenaire rods, blocks, straws
The Three Bears, bears, bowls, chairs, beds
Containers, spoons, paper cups, cereal bits

Activities:

Physical size

1. Child compares two objects as to height, length, etc.
2. Child arranges cylinders in order according to size (self-correcting).

Objective #4:

Activities (continued)

3. Child orders three to five objects that differ only in size.
4. Teacher reads The Three Bears, and child arranges bears, bowls, chairs, and beds according to size.
5. Children line up by size.

Quantity:

1. Teacher gives child three spoons and four bowls to pair up. Introduce concept of "more than."
2. Teacher gives child a set of objects, and he arranges other sets to determine if they have "more than" or the "same" number of objects.
3. Child arranges containers with varying number of objects from least to most, most to least.
4. Teacher divides children into two groups, and they decide which group has more/less members.
5. Teacher fills paper cups with cereal bits and asks child to arrange cups from least to most or most to least.

Objective #5:

To identify specific space in student's surroundings by returning materials as directed, following instructions to place objects in a given place, etc.

Suggested Materials:

Materials in the classroom

Activities:

1. Child returns materials to specified place, e.g.: a) put the box in the last cubby hole, b) return the trampoline to the corner by the mirror.
2. Teacher asks child to locate an object using specific direction: e.g., get the game that is on the window sill, pick up the pencil laying by the slide.
3. Children learn and successfully manage route to gym, library, exit, bus, classroom.
4. Children follow directions: sit at reading center, line up by door, stand by the music corner.

Objective #5:

Activities (continued)

5. Children place objects on placemat as directed by teacher, i.e., put one dog and two cats on your mat.

Objective #6:

To identify geometric shapes by naming appropriately circle, square, triangle, rectangle, half-circle and hexagon

Suggested Materials:

Shapes, shapes form board
Teacher-made bingo games (using shapes)

Activities:

1. Children place geometric figures into cut-out form board.
2. Children associate name with figure: triangle, circle, rectangle, square, half-circle, and hexagon.
3. Songs: "Did you ever see a circle, square, triangle? Show us one now." Children can hold cards with shapes drawn on them and show the card whenever the shape is said in the song.
4. "Musical shapes" - teacher places construction paper shapes around room on floor and plays music while children move around room from one shape to the next. Teacher stops music and calls name of shape on which children are to stop.
5. Children play shape games, using bingo-type cards, a spinner, and figures to cover card.
6. Shape Twister - arrange cutout circular, square, triangular, and rectangular shapes on the floor. Teacher gives command, "Jump on the rectangular shape."

Objective #7:

To identify geometric forms by describing each in terms of circle, straight lines, curves, etc.

Objective #7 (continued)

Suggested Materials:

Triangle (triangular), circle (circular), rectangle (rectangular), square (squarelike), half-circle, hexagon (hexagonal)

Activities:

1. Teacher identifies one shape at a time in terms of straight lines, curves, corners, length of sides, etc.
2. Child practices identification of triangle, circle, square, and rectangle until he can identify and describe each correctly.
3. Teacher adds additional shapes to the group one at a time.
4. Child progressively selects shape that teacher requests by name.

Objective #8:

To demonstrate the ability to reproduce a simple pattern by copying a model

Suggested Materials:

Shapes, pictures, blocks, two of each item selected

Activities:

Teacher arranges series of objects, shapes, or pictures for child to copy in the same order.

Objective #9:

To count to 10 in practical situations

Suggested Materials:

Markers, i.e., strips of paper, textured materials strips, large mirror, picture cards, picture of each child in the room

Objective #9 (continued)

Activities:

Teacher asks the child to count:

1. Number of fingers or toes, using songs or rhymes;
2. Set of 10 markers;
3. Number of people in room;
4. Number of spaces to be moved in game;
5. Number of art pictures on bulletin board.
6. Group sings "John Brown Had a Little Indian" and "Ten Little Fingers," etc.
7. Teacher presents child with pictures of sets of objects and asks him to identify them with the number name.
8. Make a picture of each child (paper doll form) to place on wall. When a child is absent, place his picture upside down, then children count the upright pictures as teacher touches them.

Objective #10:

To count the number of objects in a given set and to construct another set of from one to 10 objects on teacher request

Suggested Materials:

Chalk, dots cut from iridescent or black heavy paper, small stones
A variety of materials that can be manipulated by child, picture cards

Activities:

1. Teacher prepares picture cards, i.e., cards with three buttons, four blocks, etc., and tells children which kind of card to collect. First child to collect five of the same value is the winner.
2. Teacher prepares hopscotch pattern on the floor with group of dots in each space. Children toss stone and count number of dots in that space
3. Children construct set of a specified number of objects.

Objective #11:

To identify data on simple graph by selecting appropriate weather symbols, calendar dates, etc.

Objective #11 (continued)

Suggested Materials:

Calendar, weather symbols, i.e., clouds for rain, snowman for snow, etc.
Charts to record information, crayons
Colored squares of paper

Activities:

1. Teacher and children make weather pictograph with symbols for weather types for two weeks.
2. Teacher and children make calendar with special events (Halloween, birthday, field trips, etc.) marked.
3. Teacher and children make experience chart of step-by-step procedure of activity, e.g., art project, science project of making butter, etc.
4. Child colors in a column which matches his height.
5. Teacher makes color columns. Child colors patches of the colors he is wearing in the appropriate columns.
6. Teacher prepares chart paper with columns, pictures representing TV shows, and a colored block for each child; attach a picture to each column. Child places his block above the picture of his favorite show.
7. Make color graph with color names along the horizontal axis and numbers along the vertical. Ask each child what his favorite color is, and color in the appropriate block on the graph. Count number of blocks shaded in for each color.

Objective #12:

To identify numerals from 0 to 10 by reading them in sequence on cards or charts

Suggested Materials:

Bulletin board, variety of objects, numerals, letters, paper, crayons, Playskool Wooden Dominoes, Playskool Match-ups

Activities:

1. Teacher constructs number bulletin board. Each numeral is pictured with appropriate number of objects and written word. Include print and braille forms. Construct on a pegboard background, so real objects may be attached with string (thus providing visual and tactual awareness).
2. Child makes number book, with number of objects and corresponding numeral on each page.

Objective #12:

Activities (continued)

3. Child plays Dominoes, matching numerals to number of objects.
4. Child plays with interlocking puzzle cards, matching objects with numeral (self-correcting).
5. Child makes numeral in gross movements, using his hands as pointer.
6. Child traces numerals in sand.
7. Teacher and children construct a number mobile.

Objective #13:

To demonstrate understanding of numerical order by arranging sets of objects or numerals from 1 to 10

Suggested Materials:

Number cards with a set of objects pictured on each, dot-to-dot worksheets

Activities:

1. Teacher asks child to make a set of one. "Now make another set of one and add one more. How many do you have now?" Child continues to make sets from one to 10, with one set having one more than the preceding set.
2. Child arranges cards with various numbers of pictured objects on them in order.
3. Teacher makes small dots on toy trains, and child hooks trains together in order.
4. Child arranges containers with specific number of objects inside in order.

Objective #14:

To identify sets with more, less, or the same number as a given set

Suggested Materials:

Variety of materials, number picture cards, numerals

Activities:

1. Teacher gives each child a number card, and then calls out a number. Children whose number is smaller stand in the front of the room, others in the back.

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Cognitive/Creativity
SOCIAL STUDIES

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | 1. To identify and describe in simple terms some of man's basic socioeconomic needs, i.e., food, shelter, clothing, communication, and transportation<br>2. To display an awareness of basic community life and function by relating basic socioeconomic needs to the activities and functions of different people and organizations within the local community<br>3. To demonstrate an awareness of cultural differences by recognizing and identifying some different patterns of living among people in the environment | | | |
| 4-5 yrs. | 4. To display an understanding of multiple roles within the community by recognizing some of the varying roles of different people within the family, the school, and the neighborhood<br>5. To demonstrate the ability to separate objects into categories by classifying different types | | | |
| 4-6 yrs. | 6. To demonstrate an understanding of calendar time and local community by relating dates and locations to personal experiences | | | |
| 5-6 yrs. | 7. To demonstrate an increasing sense of national pride and identity by recognizing and describing in simple terms the leaders or events honored in major national holidays<br>8. To demonstrate knowledge of the meaning of national holidays by participating appropriately in national celebrations through stories, songs, and art | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
SOCIAL STUDIES

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | 9. To demonstrate knowledge of native culture and other cultures by identifying some customs and celebrations which are very old, and which belong to our nation, or to other cultures and nations | | | |
| | 10. To demonstrate a growing awareness of ecology by recognizing the need for conservation of natural resources | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To identify and describe in simple terms some of man's basic socioeconomic needs, i.e., food, shelter, clothing, communication, and transportation

Suggested Materials:

Pictures of food, clothing, and types of communication, transportation, and shelter

Activities:

1. Teacher asks children to discuss how they live with emphasis on needs they have, i.e., food, clothing, shelter, etc. A flannel board can be built and items representing needs placed on the board as each is mentioned.
2. Children state their needs: a) food, b) shelter, c) clothing, d) transportation, e) communication.
3. Children state the reasons these items are necessary:
    a. Food--to eat, so I can grow, live, etc.;
    b. Shelter--to keep me out of the elements (weather);
    c. Clothing--to keep warm;
    d. Transportation--to move from one place to another, to get to school, grocery, etc.;
    e. Communication--to find out news, to call home, friend, etc.

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Objective #2:

To display an awareness of basic community life and function by relating basic socioeconomic needs to the activities and functions of different people and organizations within the local community

Suggested Materials:

Pictures of various workers

Activities:

1. Expanding on Objective #1, teacher introduces the concept of work. For example, children's parents work to earn money to supply their family's needs; others work to supply for their families; and all are supplying service to each other. (Include people and agencies with which children are familiar.)
2. Each child identifies types of workers and their services:
    a. Father/mother--(varies to child);

Objective #2:

Activities (continued)

b. Farmer--grows food for us to eat;
c. Police--protect and help us;
d. Firefighter--protects home from fire;
e. Bus driver--transports us;
f. Crossing guard--helps crossing street safely;
g. Doctor/nurse--help cure and prevent illness;
h. Construction worker--builds home, places to work.

Objective #3:

To demonstrate an awareness of cultural differences by recognizing and identifying different patterns of living among people in the environment

Suggested Materials:

Storybook, film

Activities:

1. Teacher uses story, filmstrips, or a child/adult visitor to discuss various cultural differences in living styles.
2. Teacher asks children to compare stories to their own lives, e.g., Oriental/Occidental. Each child states:
   a. Differences in clothing;
   b. Differences in food preferences;
   c. Differences in family role;
   d. Differences in home structure;
   e. Differences in holidays.

Objective #4:

To display an understanding of multiple roles within the community by recognizing some of the varying roles of different people within the family, the school, and the neighborhood

Objective #4 (continued)

Suggested Materials:

Pictures and filmstrips of familiar persons in their environment

Activities:

1. Using pictures or filmstrips, teacher discusses different people with whom children come in contact.
2. Teacher asks the children to talk about their roles and how they perform necessary services.
3. Each child identifies the following people and states their roles:
   a. Mother--works at home and/or outside the home, cooks, cleans, mends, comforts, plays with child;
   b. Father--works outside the home, gardens, comforts, plays with child;
   c. Themselves--help parents;
   d. Principal--runs school;
   e. Librarian--helps with books, reads stories;
   f. Cafeteria workers--cook lunches;
   g. Custodian--fixes broken items, keeps school clean;
   h. Mail carriers--deliver mail;
   i. Sanitation workers--pick up garbage, keep streets clean;
   j. School guards--help children cross busy streets.
4. Teacher asks different workers in the school to talk about their jobs and how they help the children. Discuss information received.
5. Child acts out the work of a community helper, and others guess who it is.
6. Teacher arranges a corner of the room so that children can role-play the work of a community helper, e.g., doctor--bed, doctor's kit, receptionist's desk, paper, phone, etc.

Objective #5:

To demonstrate the ability to separate objects into categories by classifying different types of familiar objects such as food, clothing, and transportation

Suggested Materials:

Actual items and pictures of food, clothing and transportation; "Classification Game"

Objective #5 (continued)

Activities:

1. Teacher gives children several actual items and has them select the ones to eat, wear, or ride in.
2. Teacher repeats activity using pictures.
3. Classification Game: Child takes picture and places it on correct board, dividing pictures into food, clothing, pets, etc.
4. Each child forms sets containing 10 food items, 10 clothing articles, 10 transportation vehicles.
5. Each child completes the game placing all cards on correct board.

---

Objective #6:

To demonstrate an understanding of calendar time and local community by relating dates and locations to personal experiences

Suggested Materials:

Calendar

Activities:

1. On the calendar, teacher lets children take turns marking off holidays, birthdays of other children, special events, e.g., field trips, in which the class will participate.
2. Child locates on the calendar: a) birthday, b) two holidays, and c) two special class events.

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Objective #7:

To demonstrate an increasing sense of national pride and identity by recognizing and describing in simple terms the leaders or events honored in major national holidays

Suggested Materials:

Calendar, books, stories, records about holidays

Objective #7 (continued)

Activities:

1. Using a calendar with special holidays marked, teacher describes to the children the holiday to be celebrated and a simple history of the event.
2. Each child identifies the following holidays and states the reason for it:

| | | |
|---|---|---|
| Veterans Day | Thanksgiving | New Year's Day |
| Memorial Day | Independence Day | Labor Day |

Objective #8:

To demonstrate knowledge of the meaning of national holidays by participating appropriately in national celebrations through stories, songs, and art

Suggested Materials:

Stories about holidays, art materials, songs related to holidays

Activities:

1. Teacher reads children history of events or stories concerning celebration of these events.
2. Children follow up in class through art project, program, pantomime, music, etc.
3. Each child participates by: a) singing a song taught in association with a holiday, and b) completing art project depicting a holiday.

Objective #9:

To demonstrate knowledge of native culture and other cultures by identifying some customs and celebrations which are very old, and which belong to our nation or to other cultures and nations

Suggested Materials:

Stories and songs about holidays in different cultures or nations

Objective #9 (continued)

Activities:

1. The teacher reads stories about celebrations and holidays in other countries, asking children if we celebrate events in same manner. If not, how do the children in the story celebrate the event?
2. Each child identifies the customs accompanying the following:

St. Nicholas Day
Christmas
Mardi Gras
Easter
Children's Day
Jewish New Year
Halloween
Chinese New Year

Objective #10:

To demonstrate a growing awareness of ecology by recognizing the need for conservation of natural resources

Suggested Materials:

Pictures of environment, trips, e.g., to stream or river

Activities:

1. Children take field trips in community with exploration structured by teacher to develop awareness of natural resources and their value to us.
2. Using pictures from environmental associations and National Park Service, teacher discusses with children what is happening to our resources and what preventive measures are being attempted. Ask how they can help conserve resources.
3. Each child will state how the following resources are endangered and give one appropriate way they can help conserve each, e.g., turn off lights when not using, not pulling up plants, etc.: a) water, b) air, c) soil, and d) fuel supplies.
4. On trip to park or other nature spot with a stream or river, show children how stream cuts into land and erodes soil. Collect a water sample in clear glass so children can see pollutants in water. Follow up with discussion of prevention of further waste.

Name ____________________

Age _____years _____months

Date of Assessment ______

Cognitive/Creativity
ART

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | 1. To demonstrate the ability to visually express individual feelings, ideas, and experiences | | | |
| | 2. To demonstrate knowledge of various art supplies by naming each and identifying its use | | | |
| | 3. To demonstrate acceptance of responsibility by appropriate use of and caring for art tools and materials | | | |
| | 4. To develop independence by making selections from available art materials and using tools with confidence | | | |
| | 5. To demonstrate independence by working independently with chosen materials | | | |
| | 6. To demonstrate imaginative use of discarded items for art products | | | |
| | 7. To develop an awareness of colors and textures by reporting and discussing those encountered on the way to school and in the classroom | | | |
| | 8. To demonstrate an awareness of differences and similarities in a variety of colors, shapes, and textures by collecting them from their environment | | | |
| | 9. To demonstrate the ability to describe why they like certain illustrations in a library book or on a bulletin board | | | |
| | 10. To demonstrate the ability to work cooperatively on group projects with peers | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
ART

Objective #1:

To demonstrate the ability to visually express individual feelings, ideas, and experiences

Suggested Materials:

Art media: crayons, chalk, paint, payons, various textures of paper, scissors, glue, collage materials, etc.

Activities:

Teacher says to child:

1. "Can you paint a happy picture?"
2. "Can you illustrate the story we 'wrote' today in class?"
3. "Show me how you look when you are very sad. Can you paint a picture of yourself being sad?"
4. "Can you make a picture to show me how you feel today?"

---

Objective #2:

To demonstrate knowledge of the use of various art supplies by naming each and identifying its use

Suggested Materials:

Brush, crayon, scissors, glue, easel, slick paper (finger painting), rough paper (easel painting tempra), tempra paint, water color paint, chalk, clay, water jar, and payons

Activities:

1. Teacher explains to the children what the various art supplies are used for.
2. Teacher asks child: "What is this? What do you use it for?"
    a. brush
    b. crayon
    c. scissors
    d. glue
    e. easel
    f. slick paper
    g. rough paper
    h. tempra paint
    i. water color paint
    j. chalk
    k. clay
    l. water jar
    m. payons

Objective #3:

To demonstrate acceptance of responsibility by appropriate use of and caring for art tools and materials

Suggested Materials:

Brushes, finger paints, clay, tempra paints, easel

Activities:

Teacher discusses with the group the proper care of brushes and other art equipment. Each child is asked to:

1. Wash brushes after painting;
2. Wipe table after finger painting or working with clay;
3. Help moisturize clay by sprinkling it weekly with water;
4. Help choose and mix tempra paints;
5. Help clean easel after it has been used; and
6. Put away art materials in special area provided.

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Objective #4:

To develop independence by making selections from available art materials and using tools with confidence

Suggested Materials:

Crayons, chalk, water colors, tempra paint, colored pencils, payons, newsprint, rough paper, finger paint paper (slick)

Activities:

1. Teacher provides an "art area" and several materials for free play time, allowing the children to choose these materials at will.
2. Teacher describes what is available and when it is open to use.
3. Staff keeps a record of who uses the table and the variety of materials they use.
4. Teacher instructs "You may select anything in this area to work with. You may use: ______" (see suggested materials).
5. Children choose what they wish to use for the activity.

---

Objective #5:

To demonstrate independence by working independently with chosen materials

Suggested Materials:

A variety of materials: clay, tempra, water colors, chalk, crayons, colored pencils, paper, etc.

Activities:

Children are instructed to create independently and are allowed to experiment with media. Teacher asks the following questions:
1. "Can you make a painting all by yourself?"
2. "Can you illustrate the story the librarian read us today?"
3. "Can you surprise me with a picture? Use any materials you want to."

---

Objective #6:

To demonstrate imaginative use of discarded items for art products

Suggested Materials:

Any materials child finds and selects from the environment

Activities:

Teacher says to the child:
1. "What could you find here at school or at home to make an unusual art project?" (i.e., beans, egg cartons, yarn, etc.)
2. Teacher assists children to make collages out of item brought in.

---

Objective #7:

To develop an awareness of colors and textures by reporting and discussing those encountered on the way to school and in the classroom

Suggested Materials:

Toys, collected objects, and/or items from the immediate environment showing a wide range of hue, color, texture, and shape

Objective #7 (continued)

Activities:

1. Teacher says:
   a. "Can you see something in the room that is yellow, red, blue?"
   b. "Do you see a color when you close you eyes? What color?"
   c. "What colors are in the clothes you are wearing today?"
   d. "What colors do you see through the window?"
   e. "Can you show me something that is (1) rough, (2) smooth, (3) soft, (4) hard?"
   f. "Can you show me two items that are green--but not the same shade of green?"
2. Teacher discusses with the child the properties of the various collected items: rough, smooth, soft, hard.

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Objective #8:

To demonstrate an awareness of differences and similarities in a variety of colors, shapes, and textures by collecting them from their environment

Suggested Materials:

Items children bring from home

Activities:

1. Teacher helps children collect a variety of items from home, classroom, and outside and discuss properties of each. Teacher says:
   a. "Can you see something in the room that is yellow, red, blue?"
   b. "Can you show me something that is: (1) rough, (2) smooth, (3) soft, (4) hard?"
   c. "Can you show me two items that are green--but not the same shade of green?"
2. Teacher has the child draw a comparison between sets of two items of different and opposite properties using the terms: (1) soft-hard, (2) rough-smooth, (3) big-little.

---

Objective #9:

To demonstrate the ability to describe why they like certain illustrations in a library book or on a bulletin board

## Objective #9 (continued)

### Suggested Materials:

Library books, classroom and hall bulletin boards

### Activities:

1. Teacher reads a story to the children and discusses the illustrations. Teacher then opens the discussion by asking, "Do you like the pictures in this book? Why?"
2. Teacher provides children with several books and allows time for examination and free choice. Teacher then asks: "(a) Which book has the pictures you like best? Why? (b) Which book has the pictures you like least? Why?"
3. Teacher accompanies the children through the halls of the school on a "bulletin board" field trip. Each child is then asked in turn, "Which was your favorite bulletin board? Why?"

## Objective #10:

To demonstrate the ability to work cooperatively on group projects with peers

### Suggested Materials:

Tempra paint, poster paper, brushes, pencils

### Activities:

Children make a mural for classroom bulletin board, choosing their own colors, media, subject matter, etc. Teacher observes group interaction.

1. Teacher and children discuss subject for the mural;
2. Children plan their own contribution to the mural;
3. Children set up a schedule for working on the mural;
4. Children and teacher develop a rough sketch of the mural;
5. Children select paints and work cooperatively on the project.

Cognitive/Creativity
MUSIC

Name ____________________

Age _____years _____months

Date of Assessment ______

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 4-5 yrs. | 1. To demonstrate the ability to hear and sing pitches accurately by imitating and identifying high and low pitch<br>2. To demonstrate the ability to sing a song accurately and in tune as well as possible for developmental level by singing in the group without the teacher or record<br>3. To demonstrate recognition of rhythmic aspects, i.e., steady beat (pulse), strong beat (accent), meter (music that moves in twos and threes), easy rhyme patterns in various combinations by performing to the music<br>4. To demonstrate recognition of a variety of accompaniments by identifying instruments, playing simple accompaniments, or imitating some instruments | | | |
| 5-6 yrs. | 5. To demonstrate the ability to sing a familiar song with understanding and expression by reflecting feeling in voice<br>6. To demonstrate recognition of contrasts in mood, i.e., tempo, dynamics, quality of sound of some instruments, expressive quality | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
MUSIC

Objective #1:

To demonstrate the ability to hear and sing pitches accurately by imitating and identifying high and low pitch

Suggested Materials:

Records and instruments

Activities:

The teacher:
1. Introduces appropriate song, using record or instrumental accompaniment.
2. Repeats song several times with children participating as they become familiar.
3. Identifies and sings examples of high and low sections of the song.
4. Sings entire song, having children signal when they recognize high or low parts.
5. Sings one pitch, asking children to imitate it. They follow with a different one, identifying it as higher or lower than the first.
6. Sings or plays a scale line, identifying the direction of the melody.
7. Plays echo game: (teacher) sings a short phrase and children imitate it.
8. Plays two notes on piano. Child raises hands or stands tiptoe on higher note or reaches floor or bends knees on lower note, as instructed.

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Objective #2:

To demonstrate the ability to sing a song accurately and in tune as well as possible for developmental level by singing in the group without the teacher or record

Suggested Materials:

Records and instruments

Activities:

The teacher:
1. Introduces and repeats song using record or instrumental accompaniment.
2. Discusses the story or general meaning of the song.
3. After some familiarization, has children participate on the refrain (if the song has one) or other repetitious part of the song.
4. Has children try to sing without the teacher.

Name ____________________

Age _____ years _____ months

Date of Assessment ________

Cognitive/Creativity
SOCIAL STUDIES

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| 3-4 yrs. | 1. To identify and describe in simple terms some of man's basic socioeconomic needs, i.e., food, shelter, clothing, communication, and transportation<br>2. To display an awareness of basic community life and function by relating basic socioeconomic needs to the activities and functions of different people and organizations within the local community<br>3. To demonstrate an awareness of cultural differences by recognizing and identifying some different patterns of living among people in the environment | | | |
| 4-5 yrs. | 4. To display an understanding of multiple roles within the community by recognizing some of the varying roles of different people within the family, the school, and the neighborhood<br>5. To demonstrate the ability to separate objects into categories by classifying different types | | | |
| 4-6 yrs. | 6. To demonstrate an understanding of calendar time and local community by relating dates and locations to personal experiences | | | |
| 5-6 yrs. | 7. To demonstrate an increasing sense of national pride and identity by recognizing and describing in simple terms the leaders or events honored in major national holidays<br>8. To demonstrate knowledge of the meaning of national holidays by participating appropriately in national celebrations through stories, songs, and art | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
SOCIAL STUDIES

| Age Appropriate | Objectives | Response | | |
|---|---|---|---|---|
| | | (+) | (-) | (o) |
| | 9. To demonstrate knowledge of native culture and other cultures by identifying some customs and celebrations which are very old, and which belong to our nation, or to other cultures and nations | | | |
| | 10. To demonstrate a growing awareness of ecology by recognizing the need for conservation of natural resources | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To identify and describe in simple terms some of man's basic socioeconomic needs, i.e., food, shelter, clothing, communication, and transportation

Suggested Materials:

Pictures of food, clothing, and types of communication, transportation, and shelter

Activities:

1. Teacher asks children to discuss how they live with emphasis on needs they have, i.e., food, clothing, shelter, etc. A flannel board can be built and items representing needs placed on the board as each is mentioned.
2. Children state their needs: a) food, b) shelter, c) clothing, d) transportation, e) communication.
3. Children state the reasons these items are necessary:
   a. Food--to eat, so I can grow, live, etc.;
   b. Shelter--to keep me out of the elements (weather);
   c. Clothing--to keep warm;
   d. Transportation--to move from one place to another, to get to school, grocery, etc.;
   e. Communication--to find out news, to call home, friend, etc.

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Objective #2:

To display an awareness of basic community life and function by relating basic socioeconomic needs to the activities and functions of different people and organizations within the local community

Suggested Materials:

Pictures of various workers

Activities:

1. Expanding on Objective #1, teacher introduces the concept of work. For example, children's parents work to earn money to supply their family's needs; others work to supply for their families; and all are supplying service to each other. (Include people and agencies with which children are familiar.)
2. Each child identifies types of workers and their services:
   a. Father/mother--(varies to child);

Objective #2:

Activities (continued)

b. Farmer--grows food for us to eat;
c. Police--protect and help us;
d. Firefighter--protects home from fire;
e. Bus driver--transports us;
f. Crossing guard--helps crossing street safely;
g. Doctor/nurse--help cure and prevent illness;
h. Construction worker--builds home, places to work.

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Objective #3:

To demonstrate an awareness of cultural differences by recognizing and identifying different patterns of living among people in the environment

Suggested Materials:

Storybook, film

Activities:

1. Teacher uses story, filmstrips, or a child/adult visitor to discuss various cultural differences in living styles.
2. Teacher asks children to compare stories to their own lives, e.g., Oriental/Occidental. Each child states:
   a. Differences in clothing;
   b. Differences in food preferences;
   c. Differences in family role;
   d. Differences in home structure;
   e. Differences in holidays.

---

Objective #4:

To display an understanding of multiple roles within the community by recognizing some of the varying roles of different people within the family, the school, and the neighborhood

Objective #4 (continued)

Suggested Materials:

Pictures and filmstrips of familiar persons in their environment

Activities:

1. Using pictures or filmstrips, teacher discusses different people with whom children come in contact.
2. Teacher asks the children to talk about their roles and how they perform necessary services.
3. Each child identifies the following people and states their roles:
    a. Mother--works at home and/or outside the home, cooks, cleans, mends, comforts, plays with child;
    b. Father--works outside the home, gardens, comforts, plays with child;
    c. Themselves--help parents;
    d. Principal--runs school;
    e. Librarian--helps with books, reads stories;
    f. Cafeteria workers--cook lunches;
    g. Custodian--fixes broken items, keeps school clean;
    h. Mail carriers--deliver mail;
    i. Sanitation workers--pick up garbage, keep streets clean;
    j. School guards--help children cross busy streets.
4. Teacher asks different workers in the school to talk about their jobs and how they help the children. Discuss information received.
5. Child acts out the work of a community helper, and others guess who it is.
6. Teacher arranges a corner of the room so that children can role-play the work of a community helper, e.g., doctor--bed, doctor's kit, receptionist's desk, paper, phone, etc.

---

Objective #5:

To demonstrate the ability to separate objects into categories by classifying different types of familiar objects such as food, clothing, and transportation

Suggested Materials:

Actual items and pictures of food, clothing and transportation; "Classification Game"

Objective #5 (continued)

Activities:

1. Teacher gives children several actual items and has them select the ones to eat, wear, or ride in.
2. Teacher repeats activity using pictures.
3. Classification Game: Child takes picture and places it on correct board, dividing pictures into food, clothing, pets, etc.
4. Each child forms sets containing 10 food items, 10 clothing articles, 10 transportation vehicles.
5. Each child completes the game placing all cards on correct board.

---

Objective #6:

To demonstrate an understanding of calendar time and local community by relating dates and locations to personal experiences

Suggested Materials:

Calendar

Activities:

1. On the calendar, teacher lets children take turns marking off holidays, birthdays of other children, special events, e.g., field trips, in which the class will participate.
2. Child locates on the calendar: a) birthday, b) two holidays, and c) two special class events.

---

Objective #7:

To demonstrate an increasing sense of national pride and identity by recognizing and describing in simple terms the leaders or events honored in major national holidays

Suggested Materials:

Calendar, books, stories, records about holidays

Objective #7 (continued)

Activities:

1. Using a calendar with special holidays marked, teacher describes to the children the holiday to be celebrated and a simple history of the event.
2. Each child identifies the following holidays and states the reason for it:

| | | |
|---|---|---|
| Veterans Day | Thanksgiving | New Year's Day |
| Memorial Day | Independence Day | Labor Day |

---

Objective #8:

To demonstrate knowledge of the meaning of national holidays by participating appropriately in national celebrations through stories, songs, and art

Suggested Materials:

Stories about holidays, art materials, songs related to holidays

Activities:

1. Teacher reads children history of events or stories concerning celebration of these events.
2. Children follow up in class through art project, program, pantomime, music, etc.
3. Each child participates by: a) singing a song taught in association with a holiday, and b) completing art project depicting a holiday.

---

Objective #9:

To demonstrate knowledge of native culture and other cultures by identifying some customs and celebrations which are very old, and which belong to our nation or to other cultures and nations

Suggested Materials:

Stories and songs about holidays in different cultures or nations

Objective #9 (continued)

Activities:

1. The teacher reads stories about celebrations and holidays in other countries, asking children if we celebrate events in same manner. If not, how do the children in the story celebrate the event?
2. Each child identifies the customs accompanying the following:

    St. Nicholas Day
    Christmas
    Mardi Gras
    Easter
    Children's Day
    Jewish New Year
    Halloween
    Chinese New Year

---

Objective #10:

To demonstrate a growing awareness of ecology by recognizing the need for conservation of natural resources

Suggested Materials:

Pictures of environment, trips, e.g., to stream or river

Activities:

1. Children take field trips in community with exploration structured by teacher to develop awareness of natural resources and their value to us.
2. Using pictures from environmental associations and National Park Service, teacher discusses with children what is happening to our resources and what preventive measures are being attempted. Ask how they can help conserve resources.
3. Each child will state how the following resources are endangered and give one appropriate way they can help conserve each, e.g., turn off lights when not using, not pulling up plants, etc.: a) water, b) air, c) soil, and d) fuel supplies.
4. On trip to park or other nature spot with a stream or river, show children how stream cuts into land and erodes soil. Collect a water sample in clear glass so children can see pollutants in water. Follow up with discussion of prevention of further waste.

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Name ____________________

Age _____years _____months

Date of Assessment _______

Cognitive/Creativity
ART

| Age Appropriate | Objectives | Response (+) | Response (-) | Response (o) |
|---|---|---|---|---|
| 3-4 yrs. | 1. To demonstrate the ability to visually express individual feelings, ideas, and experiences | | | |
| | 2. To demonstrate knowledge of various art supplies by naming each and identifying its use | | | |
| | 3. To demonstrate acceptance of responsibility by appropriate use of and caring for art tools and materials | | | |
| | 4. To develop independence by making selections from available art materials and using tools with confidence | | | |
| | 5. To demonstrate independence by working independently with chosen materials | | | |
| | 6. To demonstrate imaginative use of discarded items for art products | | | |
| | 7. To develop an awareness of colors and textures by reporting and discussing those encountered on the way to school and in the classroom | | | |
| | 8. To demonstrate an awareness of differences and similarities in a variety of colors, shapes, and textures by collecting them from their environment | | | |
| | 9. To demonstrate the ability to describe why they like certain illustrations in a library book or on a bulletin board | | | |
| | 10. To demonstrate the ability to work cooperatively on group projects with peers | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Objective #1:

To demonstrate the ability to visually express individual feelings, ideas, and experiences

Suggested Materials:

Art media: crayons, chalk, paint, payons, various textures of paper, scissors, glue, collage materials, etc.

Activities:

Teacher says to child:

1. "Can you paint a happy picture?"
2. "Can you illustrate the story we 'wrote' today in class?"
3. "Show me how you look when you are very sad. Can you paint a picture of yourself being sad?"
4. "Can you make a picture to show me how you feel today?"

---

Objective #2:

To demonstrate knowledge of the use of various art supplies by naming each and identifying its use

Suggested Materials:

Brush, crayon, scissors, glue, easel, slick paper (finger painting), rough paper (easel painting tempra), tempra paint, water color paint, chalk, clay, water jar, and payons

Activities:

1. Teacher explains to the children what the various art supplies are used for.
2. Teacher asks child: "What is this? What do you use it for?"

    a. brush
    b. crayon
    c. scissors
    d. glue
    e. easel
    f. slick paper
    g. rough paper
    h. tempra paint
    i. water color paint
    j. chalk
    k. clay
    l. water jar
    m. payons

Objective #3:

To demonstrate acceptance of responsibility by appropriate use of and caring for art tools and materials

Suggested Materials:

Brushes, finger paints, clay, tempra paints, easel

Activities:

Teacher discusses with the group the proper care of brushes and other art equipment. Each child is asked to:

1. Wash brushes after painting;
2. Wipe table after finger painting or working with clay;
3. Help moisturize clay by sprinkling it weekly with water;
4. Help choose and mix tempra paints;
5. Help clean easel after it has been used; and
6. Put away art materials in special area provided.

---

Objective #4:

To develop independence by making selections from available art materials and using tools with confidence

Suggested Materials:

Crayons, chalk, water colors, tempra paint, colored pencils, payons, newsprint, rough paper, finger paint paper (slick)

Activities:

1. Teacher provides an "art area" and several materials for free play time, allowing the children to choose these materials at will.
2. Teacher describes what is available and when it is open to use.
3. Staff keeps a record of who uses the table and the variety of materials they use.
4. Teacher instructs "You may select anything in this area to work with. You may use: _______" (see suggested materials).
5. Children choose what they wish to use for the activity.

Cognitive/Creativity
ART

Objective #5:

To demonstrate independence by working independently with chosen materials

Suggested Materials:

A variety of materials: clay, tempra, water colors, chalk, crayons, colored pencils, paper, etc.

Activities:

Children are instructed to create independently and are allowed to experiment with media. Teacher asks the following questions:

1. "Can you make a painting all by yourself?"
2. "Can you illustrate the story the librarian read us today?"
3. "Can you surprise me with a picture? Use any materials you want to."

---

Objective #6:

To demonstrate imaginative use of discarded items for art products

Suggested Materials:

Any materials child finds and selects from the environment

Activities:

Teacher says to the child:

1. "What could you find here at school or at home to make an unusual art project?" (i.e., beans, egg cartons, yarn, etc.)
2. Teacher assists children to make collages out of item brought in.

---

Objective #7:

To develop an awareness of colors and textures by reporting and discussing those encountered on the way to school and in the classroom

Suggested Materials:

Toys, collected objects, and/or items from the immediate environment showing a wide range of hue, color, texture, and shape

Objective #7 (continued)

Activities:

1. Teacher says:
    a. "Can you see something in the room that is yellow, red, blue?"
    b. "Do you see a color when you close you eyes? What color?"
    c. "What colors are in the clothes you are wearing today?"
    d. "What colors do you see through the window?"
    e. "Can you show me something that is (1) rough, (2) smooth, (3) soft, (4) hard?"
    f. "Can you show me two items that are green--but not the same shade of green?"
2. Teacher discusses with the child the properties of the various collected items: rough, smooth, soft, hard.

Objective #8:

To demonstrate an awareness of differences and similarities in a variety of colors, shapes, and textures by collecting them from their environment

Suggested Materials:

Items children bring from home

Activities:

1. Teacher helps children collect a variety of items from home, classroom, and outside and discuss properties of each. Teacher says:
    a. "Can you see something in the room that is yellow, red, blue?"
    b. "Can you show me something that is: (1) rough, (2) smooth, (3) soft, (4) hard?"
    c. "Can you show me two items that are green--but not the same shade of green?"
2. Teacher has the child draw a comparison between sets of two items of different and opposite properties using the terms: (1) soft-hard, (2) rough-smooth, (3) big-little.

Objective #9:

To demonstrate the ability to describe why they like certain illustrations in a library book or on a bulletin board

Objective #9 (continued)

Suggested Materials:

Library books, classroom and hall bulletin boards

Activities:

1. Teacher reads a story to the children and discusses the illustrations. Teacher then opens the discussion by asking, "Do you like the pictures in this book? Why?"
2. Teacher provides children with several books and allows time for examination and free choice. Teacher then asks: "(a) Which book has the pictures you like best? Why? (b) Which book has the pictures you like least? Why?"
3. Teacher accompanies the children through the halls of the school on a "bulletin board" field trip. Each child is then asked in turn, "Which was your favorite bulletin board? Why?"

---

Objective #10:

To demonstrate the ability to work cooperatively on group projects with peers

Suggested Materials:

Tempra paint, poster paper, brushes, pencils

Activities:

Children make a mural for classroom bulletin board, choosing their own colors, media, subject matter, etc. Teacher observes group interaction.

1. Teacher and children discuss subject for the mural;
2. Children plan their own contribution to the mural;
3. Children set up a schedule for working on the mural;
4. Children and teacher develop a rough sketch of the mural;
5. Children select paints and work cooperatively on the project.

Name ____________________

Age _____years _____months

Date of Assessment _______

Cognitive/Creativity
MUSIC

| Age Appropriate | Objectives | Response (+) | (-) | (o) |
|---|---|---|---|---|
| 4-5 yrs. | 1. To demonstrate the ability to hear and sing pitches accurately by imitating and identifying high and low pitch<br>2. To demonstrate the ability to sing a song accurately and in tune as well as possible for developmental level by singing in the group without the teacher or record<br>3. To demonstrate recognition of rhythmic aspects, i.e., steady beat (pulse), strong beat (accent), meter (music that moves in twos and threes), easy rhyme patterns in various combinations by performing to the music<br>4. To demonstrate recognition of a variety of accompaniments by identifying instruments, playing simple accompaniments, or imitating some instruments | | | |
| 5-6 yrs. | 5. To demonstrate the ability to sing a familiar song with understanding and expression by reflecting feeling in voice<br>6. To demonstrate recognition of contrasts in mood, i.e., tempo, dynamics, quality of sound of some instruments, expressive quality | | | |

Based on established criteria:
+ = correct response
- = incorrect response
o = no response

Cognitive/Creativity
MUSIC

Objective #1:

To demonstrate the ability to hear and sing pitches accurately by imitating and identifying high and low pitch

Suggested Materials:

Records and instruments

Activities:

The teacher:
1. Introduces appropriate song, using record or instrumental accompaniment.
2. Repeats song several times with children participating as they become familiar.
3. Identifies and sings examples of high and low sections of the song.
4. Sings entire song, having children signal when they recognize high or low parts.
5. Sings one pitch, asking children to imitate it. They follow with a different one, identifying it as higher or lower than the first.
6. Sings or plays a scale line, identifying the direction of the melody.
7. Plays echo game: (teacher) sings a short phrase and children imitate it.
8. Plays two notes on piano. Child raises hands or stands tiptoe on higher note or reaches floor or bends knees on lower note, as instructed.

---

Objective #2:

To demonstrate the ability to sing a song accurately and in tune as well as possible for developmental level by singing in the group without the teacher or record

Suggested Materials:

Records and instruments

Activities:

The teacher:
1. Introduces and repeats song using record or instrumental accompaniment.
2. Discusses the story or general meaning of the song.
3. After some familiarization, has children participate on the refrain (if the song has one) or other repetitious part of the song.
4. Has children try to sing without the teacher.

Objective #2

Activities (continued)

5. Adds appropriate hand motions or movement.

---

Objective #3:

To demonstrate recognition of rhythmic aspects, i.e., steady beat (pulse), strong beat (accent), meter (music that moves in twos and threes), easy rhyme patterns in various combinations by performing to the music

Suggested Materials:

Records, piano

Activities:

The teacher:
1. Encourages children to move, clap, tap, etc., while singing or listening to music.
2. Claps various short rhythmic patterns and has the children imitate them.
3. Claps and counts steady beat patterns with accents and has children listen, participate if possible, and identify which count has the accent.
4. Recites familiar nursery rhymes or chants and claps on accented syllables.
5. Illustrates rhythmic quality of names by repeating children's and teacher's names many times in succession, emphasizing accents.
6. Plays a record having a variety of rhythms and has children keep time with each rhythm.
7. Asks one child to walk and tells the other children: "Close your eyes and listen for when Mary's feet touch the ground; now open your eyes and see if we can clap every time John's feet touch the ground."

---

Objective #4:

To demonstrate recognition of a variety of accompaniments by identifying instruments, playing simple accompaniments, or imitating some instruments

Suggested Materials:

Selected instruments

Objective #4 (continued)

Activities:

The teacher:
1. Asks children to sing familiar songs, using as many different instruments as possible, such as piano, guitar, and autoharp.
2. Explains and demonstrates how accompanying instrument makes its sound, allowing the children to experiment with the instruments themselves.
3. Explains basic facts about instruments used on records, and plays accompaniments of songs in different styles.
4. Gives the children opportunities to play simple accompaniments themselves on bell, autoharp, rhythm instruments, etc.
5. Has children compare instruments, playing one and asking: "Is there another instrument that will help this one?"

---

Objective #5:

To demonstrate the ability to sing a familiar song with understanding and expression by reflecting feeling in voice

Suggested Materials:

Selected records and instruments

Activities:

The teacher:
1. Introduces song and repeats, using record or instrumental accompaniment;
2. Discusses the story or general meaning of the song;
3. Discusses what type of feeling or mood is appropriate for the song, then whether the singing would be loud, soft, lively, calm, etc., for the feeling desired;
4. Asks the child what the song is about and what special feeling it has;
5. Asks the child how to make voice reflect the feeling of the song.

---

Objective #6:

To demonstrate recognition of contrasts in mood, i.e., tempo, dynamics, quality of sound of some instruments, and expressive quality

Objective #6 (continued)

Suggested Materials:

Selected records

Activities:

The children:

1. Listen to and act out recorded story with music.
2. Listen to songs of different moods, such as a gay, happy song, a quiet, more serious song, a lullaby, etc., with teacher demonstrating and discussing differences of voice quality and general feeling of each type of song.
3. Listen to short, recorded instrumental selections illustrating quality of sounds of different instruments as children examine the instruments or pictures of them.
4. Listen to recorded selections having very well defined moods and discuss how the sounds tell the mood.

# intervention strategies

## Counseling and Parent Education

This early childhood program serves parents from all segments of society, i.e., all races, religions, socioeconomic groups, and educational levels. The one thing these families share in common is that they all happen to have a visually impaired or multihandicapped child.

In keeping with research findings reported in the literature, staff has observed that these parents react as most other parents do when they learn of their child's impairment. Typical reaction patterns include shock, disbelief, grief, anger, and despair. Feeling depressed, they may believe for some time that "it just can't be true." Questions frequently asked are "Why me?" and "How could this happen to us?" In their search for answers, feelings of blame and guilt often are generated; parents may blame not only themselves, but each other, as well. Feeling that the child's impairment may be punishment for some misdeed(s), or caused by food or drugs ingested by the mother during pregnancy, by her illness or dieting, or by something mysterious within them, parents tend to believe that they are responsible for the damage and that they are guilty of irreparable harm. Early in this process of attitudinal adjustment, referral to genetic counseling may be helpful, informative, and reassuring.

The low incidence of visual impairment may explain the feelings and experience of isolation that most parents of handicapped children have because they believe they are the only ones with these problems. Early interaction with others in similar circumstances in parent-infant seminars and other early intervention programs are essential to positive and creative redirection of their thinking and unhappy outlook. Feeling overwhelmed and inadequate to meet the challenge, parents express extreme feelings of fear and uncertainty about their children, about themselves, and even about each other. Early educational programs for the children and supportive social services, i.e., education and counseling for parents, can help bring hope and positive attitudinal changes in parents toward themselves and their children. The basic realization that they are not alone and that help is available in their own community helps to restore confidence and generate feelings of relief.

Parent resourcefulness and creativity may go unrecognized, and even the most conscientious may be unsure of themselves and unaware of the good job they are doing. Reassurance that they are doing the "right thing" and are good parents builds confidence, reduces anxiety, and restores feelings of self-worth.

Stereotypes of the "helpless blind" and fear of the future for themselves and their handicapped child can be ameliorated by their participation in parent education programs in child development, available educational resources, approaches to behavior management, and by meaningful exposure to and interaction with successful school-age and adult visually impaired persons.

Although nothing can prevent the shock and grief families experience on learning that their child is impaired, the availability of appropriate educational programs and counseling services can help smooth the difficult, demanding road to self-actualization for all family members. All services in our vision program are based on this philosophy.

Chart 7

## SOCIAL SERVICES

### Objective 1

To offer individual counseling services to parents regarding concerns and problems related to their child or his visual impairment

### Rationale

Parents need the opportunity to express feelings related to their child's handicap and its meaning to him and the family. They may be overwhelmed with feelings of guilt, denial, frustration and/or rejection. They often feel distressed and embarrassed over having a handicapped child who is easily recognizable as being different. It is not unusual for them to attribute all individual differences in the child to his handicap.

Parents doing a good job need and benefit from support and from the recognition that they are doing "the right thing" and can take pride in their accomplishments. It is helpful to identify both the areas of progress and areas in which the child still needs assistance. They are often troubled by their demanding situations and find reassurance in the fact that help is available in the community.

### Suggested Activities

Regularly scheduled home visits
Individual counseling services include:

Diagnostic assessment

- Record developmental history
- Assess how parents define their problems, concerns, and fears
- Discover what perceptions of their child's needs they have and correct misinformation e.g. "He will have to spend his life weaving baskets."
- Determine parent attitudes toward self and spouse
- Assess areas of strength and areas in which the child and/or parent need support

Counseling Program Services

Provide empathetic understanding, emotional support, information, and modeling of acceptance of the child enabling them to:

- Express their concerns and feelings
- Reality-test assumptions, i.e., that all individual differences are caused by the handicapping condition.
- Explore alternative solutions to problems related to behavior and daily living skills development.

### Assessment

1. Record of problems identified;

   e.g., Feelings toward spouse, child, handicap, relatives, outsiders, circumstances
   Fears and anxieties
   Economic, social, other

2. Changes noted in behavior:

   A. Attitudes

      Initial mind set
      Termination of specific intervention (length of time counseling accepted)
      Observable change in mind set

   B. Behavior toward child

      Initial
      Termination of specific intervention (length of time counseling accepted)
      Participation in parent education courses, i.e., behavior management
      Observable changes in behavior toward the child

| | |
|---|---|
| Explore the dynamics of visual deficiency and the part it plays in the development of the child<br>Discuss activities which can help compensate, e.g., how children learn through seeing and imitation, and consequently, the importance of bringing the environment to the child and the child to a wide variety of environmental experiences. | |

Objective 2

To help parents set realistic expectations for their child, working toward acceptance of limitations and maximum utilization of strengths

Rationale

Parents are eager to determine whether their child is developing "normally" and what they can do to help him. Many are bewildered over what to expect in the immediate present and in the future. They especially fear that their child will always be dependent and unable to lead a normal life. Some refuse to accept any physical limitations and push their child to achieve in order to deny any inadequacy. Others expect their children to remain helpless and incapacitated.

| Suggested Activities | Assessment |
|---|---|
| Through individual counseling and group meetings parents are guided:<br>To set realistic expectations<br>To understand the importance of their behavior and attitudes in helping the child satisfy his needs and reach toward his maximum potential<br>To recognize and take pride in a "job well done" (Parents often are not aware of their achievements.) | Initial expectations expressed by parents<br>Change in expectations<br>Change in behavior of parents |

Objective 3

To provide parent education and programs on topics of interest and concern

Rationale

Due to the low incidence of visual impairments, information is not readily available in the community. In fact, erroneous information and suggestions which would be contra-indicated have been made by well meaning people. The purpose of this objective is to provide parents with the information they want and need, which is not available elsewhere.

| Activities | Assessment |
|---|---|
| Elicit information from parents on their interests and concerns and provide parent education programs based on their suggestions, such as<br>Panel discussions<br>Speakers<br>Films<br>Demonstration of materials, approaches, supplies<br>Group discussions | Number of programs provided<br>Content of programs<br>Number of parents attending programs<br>Parent reaction and/or evaluation of each program |

Objective 4

To provide an opportunity for parents to meet on a regular basis with other parents, in order to discuss their concerns with those who have similar problems, to exchange information, and to share experiences

Rationale

Parents seem to feel isolated as they are usually the only ones in their neighborhood who have a visually handicapped child. Group meetings help to dispel the myth of uniqueness and provide the opportunity to share information and concerns. The realization that their situation and feelings are not unique, but are shared by other members of the group is a supportive and reassuring experience.

| Suggested Activities | Assessment |
|---|---|
| Provide group counseling activities to give parents opportunities to get together with others who have similar problems and concerns, to share experiences, and to exchange information | Number of meetings<br>Number of parents participating in meetings |

Objective 5

To meet regularly in order to provide a basis for cooperation and communication between the home and the school

Rationale

Problems and misunderstandings can often be prevented as well as easily resolved through frequent communication between home and school.

| Suggested Activities | Assessment |
|---|---|
| Provide regularly scheduled home visits | Record the number of times parents are involved in each activity |
| Provide parents with an opportunity to meet together regularly | Note specific home follow-through and/or lack of it |
| Arrange periodic team-parent conferences | |
| Encourage frequent observation of the classroom | |
| Suggest follow-through activities to continue at home for reinforcement | |

### Objective 6

To afford parents an opportunity to explore various approaches to child rearing and to behavior management to be used in solving problems and encouraging desirable behavior

### Rationale

It is not our position to recommend any one approach toward behavior management, but rather, to bring training in several approaches so that parents will feel more confident in their own abilities to cope with behavior management and other problems as their children grow. Parents are enabled to explore more effective methods of child rearing, and to seek solutions to problems of daily living and management, e.g. feeding, toilet training, discipline, sibling rivalry, and conflict resolution through individual counseling, group discussion, and special courses.

| Suggested Activities | Assessment |
|---|---|
| Provide parent education courses in different approaches to communication and problem solving such as those contained in:<br>Parent Effectiveness Training, (Gordon)<br>Children: The Challenge, (Dreikurs)<br>Between Parent and Child, (Ginot)<br>Born to Win, (James and Jongeward)<br>Your Child Is A Person, (Chess, et al.) | Courses offered<br>Number of parents participating in courses |

### Objective 7

To provide information on resources available in the community and to make referrals to appropriate agencies as indicated by needs

### Rationale

Public dissemination of information about needed community resources and agencies is often inadequate or ineffective. The young parents, alone even among friends, are typically isolated from access to knowledge of any community resources appropriate for them. Their feeling that there is "no one who understands or who can help" is characteristic of these parents.

| Suggested Activities | Assessment |
|---|---|
| Develop a file on community resources | Specific information provided to individual families |
| Furnish each parent with a Community Resources Directory | Number of referrals made to other agencies or services |
| Arrange for speakers, films, etc., from and about local service agencies | |
| Refer individuals or families to appropriate community agencies and services, i.e., legal aid, Mental Health Service, recreational and educational facilities, list of babysitters for children with special needs, respite care | |

## Your Child as a Person

All development--physical, mental, social, and emotional--results from interplay between children and their environment. This interplay is often stressed in relationship to mental growth, but it is equally important in all phases of development.

In terms of physical development, it is obvious that the early health and normal growth of children depend on good nutrition. Nutrition is not merely having enough food, but having enough of the right foods, in appropriate balance, at appropriate intervals. More and more, we are encouraged to believe that the eating habits of adults develop rather early in childhood, and that the way children are encouraged to eat in the preschool years may determine whether they will have weight problems in later life.

Equally important is the habit of getting enough sleep. Children should approach bedtime with pleasant, relaxing experiences so that anxiety and emotional stress do not lead to wakefulness or nightmares. It is most unfortunate for children to associate going to bed with punishment; being put to bed as punishment represents rejection by the family in the sense that they are put away by themselves while the family has a good time. Intense family quarrels are traumatic experiences for a child at any time of day, but they are especially frightening at bedtime. The terror of nightmares in adults can often be traced back to unpleasant family events in childhood.

Active families develop physical habits such as exercise and regular physical activity with games that involve body movement and stimulating experiences in the open air. It is especially important that visually handicapped children be included in such family activity very early in life, that they learn to play, to run, to take their turn, to use playground equipment in ways that are safe and in settings which lead to fun, not fear. Never say, "Don't do that," to a visually handicapped child if you could, with just a little more time and effort, teach him to do "that" safely.

Physically poised and strong blind adults have learned to know and use their own bodies during all the years since babyhood when they were first encouraged to crawl, explore, climb, and use steps safely and gracefully. Grace of movement requires excellent muscular control which is acquired over many years in play, group activities, and only much later in disciplined exercises.

Now, what about mental development? "Nothing worth knowing has ever been taught," is a play on words, but it is largely true that we make material available to children and we motivate them to want to know it. Most learning can be explained by those two steps.

We motivate by our smiles and words of praise when children begin to make sounds that approach words; we motivate by giving the things they ask for--when they ask clearly enough so that we understand; later, we motivate by praise for good school grades, etc. Sometimes, we motivate in ways we did not intend and, inevitably at times, they learn things we would rather they did not learn. But the material must have been available to be learned, and something or someone in their world motivated them to learn it.

Motivation can be killed, for example, by giving things before they ask for them so that all their needs are filled too easily.

Most parents, and especially parents of visually handicapped children, are better at motivating than at making the learning material constantly available. Always be alert to make all kinds of experiences and information available. Talk constantly, giving the names of things, shapes, textures, and whatever is appropriate to the child's age. Describe in simple terms what you are doing and, perhaps even more important, try to explain very simply why you are doing it and what the outcome will be. Attach the action to the material object, and the outcome to the action, so that there is a flow of concepts, a unity.

As soon as children are old enough, have them beside you as you work and place your tools--such as pots, pans, and mops, etc., in their hands. Let them "help" you--even when it takes much longer than if you did not! Teach them to do the task correctly. If they help dry the pan but leave water on half of it, show them how to feel all over the pan to be sure it is dry. You will teach the shape of the pan, the nature of wetness, and how to do a good job, all in one lesson.

Very early in life, get the habit of being honest with them about whether they are doing a thing well. Learning gracefully to correct what we have done incorrectly is something all of us should learn very early in life; the lesson is far less painful in youth than when one is an adult. Much depends on how you, as a parent, accept the children's failures. Never make fun of them, never make unfavorable comparisons with other children, never be sarcastic. Rather, laugh with them, not at them, when something goes wrong. Show them what fun it is to make it right, and what pride we can feel in a job well done.

Learn to take time with your children, in dressing, eating, and all activities. Let them do as much as they can for themselves and praise their accomplishments; yet frequently show them how they can do just a little more or just a little better, and what fun it is to do so. Do not limit their growth toward independently doing things for themselves just because it is easier, quicker, or neater for you to do it for them. It takes a lot of time to make the world real to a blind child, but it is worth every minute of it.

Learn the difference between motivating--(making learning fun and something to be rewarded)--and "pushing" the child. Never try to force a child to learn. You cannot. Encourage with rewards; never associate failure with learning. When they fall, when they fail, pick them up, give them a kiss and say, "You'll probably make it the next time. Try again tomorrow." Children should not fear failure; it is a necessary step in learning and growing. It is how individuals handle failure that matters, not the fact that sometimes they fail.

Social skills and social confidence result from interplay between the opportunities for social development and the individual. Very, very early, blind babies need to be aware of people, or at least of "caring persons," near them. In infancy, the mother is usually that "caring person," so a great deal of the individual's ultimate personality depends on the warmth and understanding of that relationship with the mother in infancy. As the baby grows older, this warm and accepting relationship must go beyond the mother to include the father, other caring adults and, later, other children. Even at an early age, the child needs appropriate experience with other children. Recognizing that adults also care for them, they can learn by listening to and observing adults (other children) that constructive play can be fun, but that they must take their turn and sometimes share their toys. Let children learn rather early that they can contribute to family life by doing things for others just as others do things for the children. Give children small responsibilities when they are old enough and help them feel genuinely a part of family effort.

All of us have a sense of our own value from two sources: doing things for others and receiving from others. If you do everything for visually handicapped children and do not encourage them to do things for others, you deny them half of the possible sources of self-worth. All too often, the result will be that they make more and more demands upon their families, and ultimately upon society, because it is only by what others give to them that they can be assured that they are persons of value.

Social development blends into emotional development. Our view of ourselves comes from what others think of us and how they treat us. Children who are neglected and left out of things place a low value upon themselves *all of their lives*. Yet it is equally wrong to make visually handicapped children the center of all family thinking, people to whom others are to be sacrificed. That is poor preparation for a world where they will not always be the center. A natural give-and-take is best.

# appendices

Appendix A

## Environmental Factors

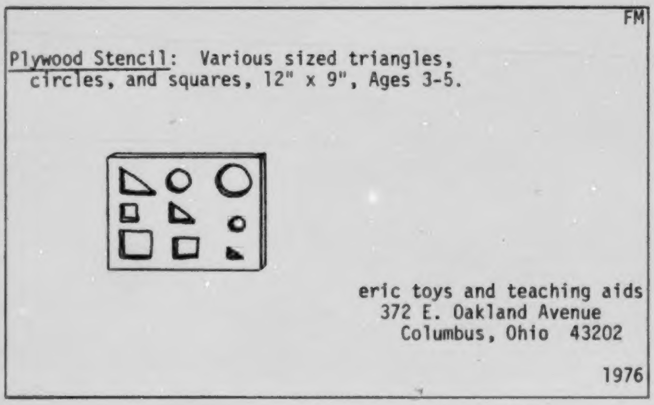
### Instructional Materials and Equipment

It is recommended that a picture inventory be kept from the outset. A 5x8 bibliography card should be made for each item showing the catalog picture and purchase information and the categorical and subject area coding for which the item is appropriate. The following codes are used in the Montgomery County inventory file.

| | | |
|---|---|---|
| Motor | | |
| Gross | | GM |
| Fine | | FM |
| Sensory Awareness | SA | |
| Auditory | | Aud |
| Haptic | | Hap |
| Olfactory | | Olf |
| Tactual | | Tac |
| Visual | | Vis |
| Communication | COM | |
| Language Development | | LD |
| Listening Skills | | LS |
| Writing | | Wrt |
| Dramatic Activities | | DA |
| Role Playing | | RP |

| | | |
|---|---|---|
| Self and Social Awareness | SSA | |
| Body Image | | BI |
| Position in Space | | PS |
| Social Emotional | SE | |
| Social | | S |
| Emotional | | E |
| Cognitive Creative | COG | |
| Art | | Art |
| Logical Reasoning and Classification | | LR&C |
| Math | | Math |
| Reading | | Rdg |
| Science | | Sci |
| Social Studies | | SS |
| Music | | Music |

SAMPLE
INVENTORY
CARD



FM

Plywood Stencil: Various sized triangles, circles, and squares, 12" x 9", Ages 3-5.

eric toys and teaching aids
372 E. Oakland Avenue
Columbus, Ohio 43202

1976

Where possible, specific objective numbers should be included and cross referenced on the cards. It is helpful if the cards are color coded, i.e., yellow for sensory development, etc.

## 1. MOTOR

### Gross (GM)

GM - 1.0
Little Zipper Scooter
Beckley-Cardy

GM - 1.1
Cloth Cubes
Creative Playthings

GM - 1.2
Unit Building Blocks
Community Playthings

GM - 1.3
Ring Toss
Beckley-Cardy

GM - 1.4
Lunar Balls
B & T Learning Materials

GM - 1.5
Activity Hoops
B & T Learning Materials

GM - 1.6
Blockbusters
Childcraft

GM - 1.7
Voit Heavy-Duty Utility Ball
Beckley-Cardy

GM - 1.8
Voit Playground Balls
Beckley-Cardy

GM - 1.9
Romper Stomper
Sears

GM - 1.10
Hoppity Hop
Sears

GM - 1.11
Punch Balls
Sears

Refer to: SA:Vis - 7.4

### Fine (FM)

FM - 2.0
Easy Grip Pegs and Pegboards
Ideal

GM - 2.1
Take Apart Tool Box
Beckley-Cardy

GM - 2.2
Tinker Toys
Beckley-Cardy

FM - 2.3
Mechanics Bench
Beckley-Cardy

FM - 2.4
Keys of Learning
Beckley-Cardy

FM - 2.5
Metal Insets
ETA

FM - 2.6
Lacing Boot
Ideal

FM - 2.7
Fit-A-Square/Fit-A-Circle
Beckley-Cardy

FM - 2.8
Large Colored Beads and Patterns
Early Learning

FM - 2.9
Weaving Mats
Early Learning

FM - 2.10
Mosaica - Knobs
B & T Learning Materials

FM - 2.11
Shape Register
Beckley-Cardy

Fine Motor (FM)

FM - 2.12
Shapes, Colors and Forms
Childcraft

FM - 2.13
Nesting Boxes
Creative Playthings

FM - 2.14
Sequential Sorting Box
Childcraft

FM - 2.15
Sorting Box
Ideal

FM - 2.16
Junior Lock Box
Creative Playthings

FM - 2.17
Threading
Creative Playthings

FM - 2.18
Montessori Cylinder Blocks
ETA

FM - 2.19
Form Fitter
Beckley-Cardy

FM - 2.20
Workbench
Beckley-Cardy; Playskool

FM - 2.21
Bolt Tight
Creative Playthings

Refer to: SA:Vis - 7.7
SA:Vis - 7.11
SA:Vis - 7.12
SA:Vis - 7.13
SA:Vis - 7.18
SA:Vis - 7.19
SA:Vis - 7.21
SA:Vis - 7.23

## 2. SENSORY AWARENESS (SA)

Auditory (Aud)

SA:Aud - 3.0
Auditory Perception Training
Program (APT)
DLM

SA:Aud - 3.1
Sound Cylinder Set
Creative Playthings

SA:Aud - 3.2
Shake-and-Match Sounds
Teaching Resources

SA:Aud - 3.3
Chime Ball
Sears

SA:Aud - 3.4
Familiar Sounds
DLM

Refer to: COG: Music

Haptic (Hap)

SA:Hap - 4.0
Commercial or teacher made 2' by 4', 3 equal part rectangular shaped panels; each section covered with a different textured material on which the child is asked to walk across barefoot.

Olfactory (Olf)

SA:Olf - 5.0
"Sanford's" Fragrant Mr. Sketch
Instant Water Colors
Beckley-Cardy

SA:Olf - 5.1
Fresh fruits, spices, and other distinctive scents

Tactual (Tac)

SA:Tax - 6.0
Feel and Match - Lengths
Beckley-Cardy

## Tactual (Tac)

SA:Tac - 6.1
Feel and Match - Thickness
Beckley-Cardy

SA:Tac - 6.2
Feel and Match - Textures
Beckley-Cardy

SA:Tac - 6.3
Tell by Touch
Childcraft

SA:Tac - 6.4
Sorting Trays
DLM

SA:Tac - 6.5
Texture Ball
Creative Playthings

Refer to: FM - 2.0
FM - 2.18
COM: Wrt - 10.0
COG: Rdg - 20.17

## Visual (Vis)

SA:Vis - 7.0
Large Colored Beads and Patterns
Ideal

SA:Vis - 7.1
Tri-Color Viewer
Creative Playthings

SA:Vis - 7.2
Candyland
Beckley-Cardy; Milton Bradley

SA:Vis - 7.3
Color Pattern Boards
Early Learning

SA:Vis - 7.4
Rug Croquet
Creative Playthings

SA:Vis - 7.5
Shape Dominoes
Creative Playthings

SA:Vis - 7.6
Design Cubes
Creative Playthings

SA:Vis - 7.7
Sewing Boards - Plain
Creative Playthings

SA:Vis - 7.8
Match and Check - Level 1, 2, and 4
Scott, Foresman

SA:Vis - 7.9
Colored Inch Cubes and Designs
DLM

SA:Vis - 7.10
Large Parquetry and Designs
DLM

SA:Vis - 7.11
People Puzzles (Black and Caucasian)
DLM

SA:Vis - 7.12
Animal Puzzles
DLM

SA:Vis - 7.13
Form Puzzle
DLM

SA:Vis - 7.14
Bulletin Board Cutouts - (Color Cats)
Mafex; Trend

SA:Vis - 7.15
Wipe-Off Cards
(Pattern Repetition, Level 1)
Mafex; Trend

SA:Vis - 7.16
Wipe-Off Cards (Same or Different)
Mafex; Trend

SA:Vis - 7.17
Wipe-Off Cards (Finding Pairs)
Mafex; Trend

SA:Vis - 7.18
Playschool Puzzles
Beckley-Cardy; Milton Bradley

Visual (Vis)

SA:Vis - 7.19
Sewing Boards-Patterns
Creative Playthings

SA:Vis - 7.20
What's Wrong Here?
Teaching Resources

SA:Vis - 7.21
Puzzles
R. H. Stone

SA:Vis - 7.22
Lite-Brite
Hassenfeld Bros., Inc.

SA:Vis - 7.23
Puzzles - Simple
Childcraft

SA:Vis - 7.24
Toys to Develop Perceptual Skills
Milton Bradley

Refer to: FM

Suggested Programs

Frostig Developmental Program in Visual Perception
Follett Publishing

Frostig Developmental Test of Visual Perception
Follett Publishing

Fairbanks - Robinson Program
Teaching Resources

Dubnoff School Program
Teaching Resources

Vanguard School Program
Teaching Resources

Cheves Program
Teaching Resources

Erie Program
Teaching Resources

## 3. COMMUNICATION (COM)

Language Development (LD)

COM:LD - 8.0
Princess Telephone
Community Playthings

COM:LD - 8.1
Speech Mirror with Chalkboard
Beckley-Cardy

COM:LD - 8.2
Learning to Develop Language Skills
Milton Bradley

COM:LD - 8.3
Peabody Language Development Kits
American Guidance Service, Inc.

COM:LD - 8.4
Naming Actions
Ideal

COM:LD - 8.5
Naming Names
Ideal

Listening Skills (LS)

COM:LS - 9.0
Sounds
Educational Activities

COM:LS - 9.1
Sounds of People in Communities
Addison-Wesley Publishing

COM:LS - 9.2
Sounds of People in Families
Addison-Wesley Publishing

COM:LS - 9.3
Sounds of People in Neighborhoods
Addison-Wesley Publishing

Refer to: COG: Music 23.4 through 23.14
COG: Rdg - 20.19

Writing (Wrt)

COM:Wrt - 10.0
Groovy Letters - Manuscript
Ideal

### Dramatic Activities (DA)

COM:DA - 11.0
Story Telling - Flannelboards Sets
Beckley-Cardy; Instructo

COM:DA - 11.1
Animal Puppets
Community Playthings

COM:DA - 11.2
People Puppets
Community Playthings

Refer: COM:RP

### Role Playing (RP)

COM:RP - 12.0
Pliable Family
Childcraft

COM:RP - 12.1
Wood Dish Set
Childcraft, Kaplan

COM:RP - 12.2
Wood Cooking Set
Childcraft

COM:RP - 12.3
Housecleaning Set
Childcraft

COM:RP - 12.4
Aluminum Pots and Pans
Community Playthings

COM:RP - 12.5
Tea Set
Creative Playthings

COM:RP - 12.6
Giant Block Play People (White and Black)
Childcraft

COM:RP - 12.7
Stethoscope
Childcraft

Refer to: COM:DA

## 4. SELF AND SOCIAL AWARENESS (SSA)

### Body Image (BI)

SSA:BI - 13.0
Grow Chart
Trend

SSA:BI - 13.1
Look'n Do Cards - Body Movement
Trend

SSA:BI - 13.2
Look'n Do Cards - Body Awareness
Trend

Refer to: SA:Vis - 7.11
COG:Music - 23.13

### Suggested Programs

Peabody Language Development Kit
American Guidance Service, Inc.

Vanguard School Program
Teaching Resources

### Position in Space (PS)

SSA:PS - 14.0
Spatial Relations Picture Cards
DLM

### Suggested Programs

Frostig Developmental Test of Visual Perception
Follett Publishing Company

Frostig Developmental Program in Visual Perception
Follett Publishing Company

Fairbanks-Robinson Program
Teaching Resources

Dubnoff School Program
Teaching Resources

Vanguard School Program
Teaching Resources

5. SOCIAL EMOTIONAL (SE)

Social (S)

SE:S - 15.0
Best Vests
ETA

Refer to: COM:RP - 12.1 to 12.5

Emotional (E)

SE:E - 16.0
DUSO Kit
American Guidance Service, Inc.

SE:E - 16.1
Things I Can Do!
Trend

SE:E - 16.2
Things I Know!
Trend

SE:E - 16.3
Moods and Emotions -
Teaching Picture Set
Beckley-Cardy; David C. Cook

6. COGNITIVE/CREATIVE (COG)

Art (Art)

COG:Art - 17.0
Design Stamps
Creative Playthings

COG:Art - 17.1
Funny Foam Critters
S & S Arts and Crafts

COG:Art - 17.2
Glo-Rite Flourescent Chunk O Crayon
Beckley-Cardy

COG:Art - 17.3
Cotton Chenille 1/8" Pipe Cleaners
Beckley-Cardy

COG:Art - 17.4
Flourescent Water Colors
S & S Arts and Crafts

COG:Art - 17.5
Blunt Double Handle Training Scissors
Beckley-Cardy

COG:Art - 17.6
General Supplies:
1. Chalk, pastels, payons, magic markers, crayons, paintbrushes
2. Erasers
3. Assorted paper, e.g. construction, corrugated, crepe, tissue, newsprint
4. Plastic water color cups
5. Assorted paints, e.g. tempera, finger, water colors, fluorescent
6. Clay and
7. Scissors

Beckley-Cardy

Logical Reasoning and Classification (LR&C)

COG:LR&C - 18.0
Sequential Picture Cards I & II
DLM

COG:LR&C - 18.1
Category Cards
DLM

COG:LR&C - 18.2
Association Picture Cards I, II, & III
DLM

COG:LR&C - 18.3
Language Big Boxes - Sequential Picture Cards I
DLM

COG:LR&C - 18.4
Language Big Boxes - Category Cards
DLM

COG:LR&C - 18.5
Mix'n Match Puzzles - 3 Part (Small, Medium, Large)
Mafex; Trend

COG:LR&C - 18.6
Mix'n Match Puzzles - 2 Part (What's Missing?)
Mafex; Trend

COG:LR&C - 18.7
Mix'n Match Puzzles - 2 Part
(Go-Togethers)
Mafex; Trend

COG:LR&C - 18.8
Match Me Cards (Opposites)
Mafex; Trend

COG:LR&C - 18.9
Geometric Blocs
B & T Learning Materials

COG:LR&C - 18.10
The Classification Game
Childcraft

COG:LR&C - 18.11
Functions
Teaching Resources

COG:LR&C - 18.12
Size Sequencing Cards
DLM

Math (Math)

COG:Math - 19.0
Early Childhood Enrichment Series -
Development of Number Readiness
Milton Bradley

COG:Math - 19.1
Matchmates
Creative Playthings

COG:Math - 19.2
Wipe-Off Cards, Number 1-10
Mafex; Trend

COG:Math - 19.3
Wipe-Off Cards, How Many? Level 1
Mafex; Trend

COG:Math - 19.4
Wipe-Off Cards, How Many? Level 2
Mafex; Trend

COG:Math - 19.5
Mix'n Match Puzzles - 3 Part
(Number Concepts)
Mafex; Trend

COG:Math - 19.6
Tactile Numeral Blocks
Childcraft

COG:Math - 19.7
3-Way Numbers
Childcarft

COG:Math - 19.8
Flannel Boards and Number Aids
Childcraft

COG:Math - 19.9
Math Games and Activities, Level K
Mafex; Trend

COG:Math - 19.10
Sesame Street Number Concepts
Beckley-Cardy

COG:Math - 19.11
Playstore Cash Register
Beckley-Cardy

COG:Math - 19.12
Shapes and Numerals
Beckley-Cardy; Edu-cards

COG:Math - 19.13
Sets and Numbers
Beckley-Cardy; Edu-cards

COG:Math - 19.14
Magnetic Numbers and Symbols
Beckley-Cardy

COG:Math - 19.15
Counting Cube
Beckley-Cardy

COG:Math - 19.16
1-10 Number - Numeral Triple Tiles
Beckley-Cardy

COG:Math - 19.17
Uniscore Number Bars
B & T Learning Materials

COG:Math - 19:18
Beaded Number Blocks
Beckley-Cardy; Ideal

COG:Math - 19:19
Jumbo Numerals
Early Learning

COG:Math - 19:20
Jumbo Dominoes
Early Learning

COG:Math - 19:21
Locking Numbers
Early Learning

COG:Math - 19:22
Peg-It Number Boards
Early Learning

COG:Math - 19:23
Giant Number Cards
Beckley-Cardy

COG:Math - 19:24
Classroom Counting Frame
Ideal

COG:Math - 19:25
Learning One-To-One Correspondence
Beckley-Cardy; Instructo

Reading (Rdg)

COG:Rdg - 20.0
Match-A-Block
Creative Playthings

COG:Rdg - 20.1
Wipe-Off Cards (Beginning Sounds)
Mafex; Trend

COG:Rdg - 20.2
Mix'n Match Puzzles - 3 Part
(Consonants)
Mafex; Trend

COG:Rdg - 20.3
Match Me Cards (Beginning Sounds)
Mafex; Trend

COG:Rdg - 20.4
Alphabet Jigsaw
Childcraft

COG:Rdg - 20.5
A Tactual Road to Reading
APH

COG:Rdg - 20.6
Magnetic Board and Letters
Beckley-Cardy

COG:Rdg - 20.7
Development of Readiness to Read
Milton Bradley

COG:Rdg - 20.8
Giant Alphabet Poster Cards
Milton Bradley

COG:Rdg - 20.9
Alpha Bet
Beckley-Cardy, Edu-cards

COG:Rdg - 20.10
Jumbo Alpha-number-
Capitals and Lower Case
Beckley-Cardy

COG:Rdg - 20.11
Fun with Capital and Lower Case Letters
Beckley-Cardy; Instructo

COG:Rdg - 20.12
Manipulative Books
Bowmar

COG:Rdg - 20.13
Jumbo Alphabet
Early Learning

COG:Rdg - 20.14
Match-The-Sounds Puzzles
Beckley-Cardy; McGraw-Hill

COG:Rdg - 20.15
Picture Card Collection
Beckley-Cardy; McGraw-Hill

COG:Rdg - 20.16
Fun With Rhymes
Instructo

COG:Rdg - 20.17
Sand Symbol Manuscript
Jem Innovations

COG:Rdg - 20.18
Alpha Time - Professional Guide and
Record Album
New Dimensions in Education, Inc.

COG:Rdg - 20.19
See'n Say Toys - The Bee Says
Beckley-Cardy

COG:Rdg - 20.20
Let's Learn Sequence
Beckley-Cardy

COG:Rdg - 20.21
Carnival of Beginning Sounds
Beckley-Cardy

Refer to: COM:Wrt - 10.0

Science (Sci)

COG:Sci - 21.0
Comparison Balance
DLM

COG:Sci - 21.1
Bulletin Board Cutouts - Health Hints
Mafex; Trend

COG:Sci - 21.2
Mix'n Match Puzzles - 2 Part
(Animals and Their Young)
Mafex; Trend

COG:Sci - 21.3
Vinyl Animals
Childcraft

COG:Sci - 21.4
Your Five Senses - Teaching Picture
Set
Beckley-Cardy; D. C. Cook

COG:Sci - 21.5
Vegetables and Fruits
Milton Bradley

COG:Sci - 21.6
Animals and Their Young
Milton Bradley

COG:Sci - 21.7
Five Senses
Trend

COG:Sci - 21.8
Jumbo Horsehoe Magnet
Beckley-Cardy; Ideal

COG:Sci - 21.9
Food Groups - Bulletin Board Cutouts
Trend

Refer to: COM:LD - 8.2

Social Studies (SS)

COG:SS - 22.0
Community Friends - Bulletin Board
Cutouts
Beckley-Cardy; Trend

COG:SS - 22.1
Safety Signs - Bulletin Board Cutouts
Trend

COG:SS - 22.2
Block Play People - Community Workers
Childcraft

Refer to: COM:LD - 8.2

Music (Music)

COG:Music - 23.0
Twin Bongo Drum
Childcraft

COG:Music - 23.1
Eight Tone Bells
Childcraft

COG:Music - 23.2
Musical Instruments (Tambourines,
Snare Boy and Mallet, Tom Boy and
Mallet, Hand Drums)
Beckley-Cardy

COG:Music - 23.3
Swiss Melode Bells
Beckley-Cardy

COG:Music - 23.4
Mod Marches - Hap Palmer (Record)
Educational Activities

COG:Music - 23.5
Homemade Band - Hap Palmer (Record)
Educational Activities

COG:Music - 23.6
Movin' - Hap Palmer (Record)
Educational Activities

COG:Music - 23.7
Ideas, Thoughts and Feelings -
Hap Palmer (Record)
Educational Activities

COG:Music 23.8
The Small Musician Series
Bowmar

COG:Music - 23.9
Basic Rhythm Makers Sets
B & T Learning Materials

COG:Music - 23.10
Learning Basic Skills Through Music -
Vol. I & II, Hap Palmer (Record)
Educational Activities

COG:Music - 23.11
Learning Basic Skills Through Music -
Building Vocabulary - Hap Palmer
(Record)
Educational Activities

COG:Music - 23.12
Learning Basic Skills Through Health
and Safety, Hap Palmer (Record)
Educational Activities

COG:Music - 23.13
Getting to Know Myself - Hap Palmer
(Record)
Educational Activities

COG:Music - 23.14
Creative Movement and Rhythmic
Exploration - Hap Palmer (Record)
Educational Activities

COG:Music - 23.15
See-Through Music Box
Creative Playthings

COG:Music - 23.16
You'll Sing a Song and I'll Sing A Song -
Ella Jenkins (Record)
Folkways Records

COG:Music - 23.17
Pretend - Hap Palmer (Record)
Educational Activities

Furniture-Art

Double Easel
Community Playthings

Furniture-Audio-Visual

Record Player
Beckley-Cardy

Headphones
Beckley-Cardy

Cassette Player
Beckley-Cardy

Filmstrip Viewer
Beckley-Cardy

Filmstrip Projector
Beckley-Cardy

Telex Listening Stations
Beckley-Cardy

Furniture-Childrens

Woodcrest Furniture (Refrigerator-
Stove-Sink)
Community Playthings

Child-size Cradle
Community Playthings

Stationary Ironing Board
Community Playthings

Doll Highchair
Community Playthings

Doll House and Furniture
Community Playthings

Pram
Beckley-Cardy

Boatslide
ETA

Furniture-Gross Motor

Snap Wall
ETA

Edu-cube
ETA

Toddler Tower Combination
Community Playthings

Balance Beam
Community Playthings

Tumbling Mats
Childcraft

Tunnel of Fun
Childcraft

Rest Mats
Community Playthings

Wagon
Childcraft

Activity Bike
Childcraft

Institutional Trike
Childcraft

Bobo (Inflatable Clown)
Childcraft

## Furniture-Organizational

Tables and Chairs
Community Playthings

Locking Storage Unit
Community Playthings

Locker
Community Playthings

Extra Large Hinged Storage Unit
ETA

Dress-Up Cupboard
Community Playthings

Plastic Storage Boxes
B & T Learning Materials

Block Cart
Community Playthings

Sand and Water Play Table
Community Playthings

Pegboard Panel Screen
ETA

Flannelboard
Instructo

Nursery Clothes Locker
Childcraft

## Trucks

Big Bus
Community Playthings

Gas Stations
Community Playthings

Fire Truck (Big)
Community Playthings

Dump Truck (Big)
Community Playthings

Camper Truck (Big)
Community Playthings

Small Solid Tank Truck
Community Playthings

Small Solid Bulldozer
Community Playthings

Small Solid Airplane
Community Playthings

Floor Train
Community Playthings

Ride 'Em Car
Childcraft

Power Shovel
Community Playthings

Safety Play Traffic Signs
Community Playthings

Tractor/Trailer
Community Playthings

Block Play Vehicles
Childcraft

## Addresses of Resource Companies Used

Addison-Wesley Publishing Company
Jacob Way
Reading, Massachusetts

American Guidance Service, Inc.
Publishers' Building
Circle Pines, Minnesota

American Printing House for the Blind
1839 Frankfort Avenue
Louisville, Kentucky 40206

B & T Learning Materials
1515 Broadway
New York, New York 10036

Beckley-Cardy Company
1900 North Narragansett Avenue
Chicago, Illinois 60639

Bowmar
P. O. Box 3623
Glendale, California 91201

Childcraft Educational Corporation
150 E. 58th Street
New York, New York 10022

Community Playthings
Rifton, New York

Creative Playthings
1 East 53rd Street
New York, New York

Developmental Learning Materials
7440 Natchez Avenue
Niles, Illinois 60648

Dick Blick
P. O. Box 1267
Galesburg, Illinois 61401

Early Learning
Ideal School Supply Company
Oak Lawn, Illinois 60453

Educational Activities
P. O. Box 392
Freeport, Long Island 11520

Educational Teaching Aids Division
A. Daigger and Company
159 W. Kinzie Street
Chicago, Illinois 60610

Folkways Records
43 W. 61st Street
New York, New York

Follett Publishing Company
1010 West Washington Blvd.
Chicago, Illinois 60607

Hassenfeld Brothers, Inc.
Pawtucket, Rhode Island 02862

Ideal
Ideal School Supply Company
Oak Lawn, Illinois 60453

Instructo
Paoli, Pennsylvania 19301

Jem Innovations
4568 E. 45th Street
Tulsa, Oklahoma 74135

Kaplan School Supply
600 Jonestown Road
Winston-Salem, North Carolina

Mafex Associates, Inc., Publishers
90 Cherry Street
Johnstown, Pennsylvania 15902

Sears Roebuck and Company
2845 Alabama Avenue, S.E.
Washington, D.C.

R. H. Stone
13735 Puritan
Detroit, Michigan 48227

Teaching Resources Corporation
100 Boylston Street
Boston, Massachusetts 02116

Trend
St. Paul, Minnesota 55165

## Administrative Equipment

### Furnishings

Desks and Chairs

| | |
|---|---|
| 1 | project director |
| 3 | teacher |
| 3 | aides |
| 1 | secretarial |
| 1 | clerk typist |

Tables

| | |
|---|---|
| 2 | 4'x 6' conference tables |
| 2 | septagonal tables |
| 2 | file cabinets |
| 20 | chairs |

### Equipment

| | |
|---|---|
| 2 | IBM typewriters |
| 1 | large print typewriter |
| 1 | brailler |
| 2 | tape recorders |
| 2 | cassette players |
| 2 | talking book machines |
| 2 | record players |

| | |
|---|---|
| 1 | amplifier (for observation booth) |
| 1 | laminator and table |
| 1 | paper cutter |

Other administrative and instructional equipment and materials

- book cases
- art cabinet and long table
- easels
- indoor jungle gym
- sofas
- chairs
- low tables
- book carts
- audiovisual cart
- piano and bench
- playhouse
- carpet
- crib and mattress
- 16mm projector
- portable sony videotape unit
- camera
- overhead projector

## SUGGESTED RESOURCES

Films for Teachers and/or Parents (Indicated by T/P)

Bridging the Gap

Cinematic Concepts Corporation, 28 minutes, color.

Explores conflicts between parents and children, and suggests new methods of communication to bridge the generation gap. Confrontation and disclosure skills, problem-solving, and teaching values are included in this film which presents Dr. Thomas Gordon and portions of his Parent Effectiveness Training Approach. (T/P)

The Childwatchers

McGraw-Hill, 30 minutes, color.

Reports on recent investigations in child development and provides information on the learning processes during the early years. Demonstrates that learning begins at birth and emphasizes the importance of stimulation in a child's early environment. (T/P)

Early Recognition of Learning Disabilities

National Audio-Visual Center, 1969, 30 minutes, color.

Shows how to recognize learning disabilities in young children. Discusses symptoms and how they are manifested in everyday classroom situations. Although this film is designed for teachers, parents may find it helpful. (T/P)

Ego Development: The Core of a Healthy Personality

Sterling, 1974, 19 minutes, color.

Explains Erik Erikson's theory on the stages of development of a healthy personality. Explores children's need to develop basic trust, autonomy, and initiative, and offers suggestions on how adults can enable children to achieve these goals. (T)

Guiding Behavior

Churchill, 1966, 20 minutes, black and white.

Depicts several behavior situations that trouble nursery school teachers and shows how teachers handle and mishandle them. Can be used as a discussion stimulus for teachers. (T)

Rock-a-Bye-Baby

Time-Life, 1971, 25 minutes, color.

Presents the powerful effects of mothering and discusses maternal deprivation in Harlowe's monkeys and in infants. Discusses self-stimulation in monkeys, infants, and children and its relationship to brain activity and maternal deprivation. Shows an excellent example of a blind child in a family situation. (T/P)

Setting the Stage for Learning

Churchill, 1966, 22 minutes, black and white.

Shows how the nursery school teacher can use creativity and ingenuity to broaden the child's learning experiences. Can be used as a discussion stimulus for teachers. (T)

Setting Up a Room . . . Creating an Environment for Learning

Campus Film, 1967, 27 minutes, color.

How to plan a kindergarten classroom that will create an environment for learning which will be both functional and flexible. (T)

What Color Is the Wind?

Allen Grant Production, 1973, 27 minutes, color.

Presents the story of a family with twin boys, one of whom is blind. Describes how the family helps the blind son participate fully in life, enjoying the experiences and meeting the challenges that are important parts of growing up. (T/P)

What Do You Do When You See a Blind Person?

American Foundation for the Blind, 1971, 13 minutes, color.

Demonstrates what one does when one meets a blind person. Provides a humorous exploration of common fears and dispels many misconceptions. Presents helpful information and suggestions. (T/P)

## Films for Children

A is for Alphabet

Coronet, 1971, 11 minutes, color.

Lively, animated film which uses rhyme, song, and repetition to introduce the letters. Also shows simple words in which these letters appear.

The Durango Daredevil Strikes Again

Coronet, 1974, 12 minutes, color.

Story about a bully bear, showing that intimidation always produces negative results.

The Family Chooses a Pet

Aims, 1970, 13 minutes, color.

Boy helps family choose a pet. Information on care and feeding of pets, and good close-up pictures of the animals.

## Films for Children (continued)

### How Do You Know You Are Growing Up?

Sandler Instructional Films, 1969, 9 minutes, color.

Various ways children can know they are getting taller and growing mentally and emotionally.

### New Zebra In Town (Acceptance)

Coronet, 1974, 12 minutes, color.

Puppet story about a new zebra who suffers discrimination in school. Shows how suspicion of a new thing often grows into acceptance.

### Spring Comes to the City

Coronet, 1969, 11 minutes, color.

A young boy exploring the city looking for signs of spring, such as melting snow, gardens being planted, and children playing in the park.

## Filmstrips for Children

### Beginning Concepts I & II

New Jersey: Scholastic Magazines, Inc., 1973.

Kit containing filmstrips, cassettes, and scripts dealing with concepts of size, color, shape, texture, and numbers. Second part presents opposites, position, time, and parts of the body.

### Early Childhood Series

California: Bowmar, 1975.

Books, records, and filmstrips with the following titles: "About Myself," "The World Around Me," "I Talk--I Think--I Reason."

## Books for Teachers and/or Parents (Indicated by T/P)

Arnold, Arnold. *Teaching Your Child from Birth to School*. New Jersey: Prentice-Hall, Inc., 1971. (T/P)

Baud, Hank, and Garrett, Jeff (Eds.) *Proceedings From the First Annual Spring Workshop: Innovative and Experimental Happenings in Deaf-Blind Education.* Raleigh: South Atlantic Regional Center for Services to Deaf-Blind Children through N. C. Department of Public Instruction, 1974. (T)

Baud, Hank, and Garrett, Jeff (Eds.) *Proceedings From the Second Annual Spring Workshop: Multi-Dimensional Models for Teaching Deaf-Blind Children.* Raleigh: South Atlantic Regional Center for Services to Deaf-Blind Children through N. C. Department of Public Instruction, 1975. (T)

## Books for Teachers and/or Parents (Indicated by T/P) (Continued)

Broussard, E., & Hartner M. Further considerations regarding maternal perception of the first born, Hellmuth J. (Ed.) for *Exceptional Infant*, *2*; *Studies in Abnormalities*, 1971, 432-449. (T)

Caldwell, Erin Kent; Baldwin, Steve J.; and Brooks, Benjamin L. *A Competency Based Instructional Program for Teachers of Deaf-Blind Children*. Edited by Hank Baud, Raleigh: South Atlantic Regional Center for Services to Deaf-Blind Children through N. C. Department of Public Instruction, 1974. (T)

Chess, Stella; Thomas, Alexander; & Berch, H. C. *Your Child Is a Person*. New York: Viking Press, 1975.

Collins, N.; Czuchna, G.; Gill, G.; O'Betts, G.; Stahl, M.; & Pushaw, D. *Teach Your Child to Talk*. New York: CEBCO/Standard Publishing Company, 1975. (T)

Cratty, B. J. *Perceptual and Motor Development in Children*. Los Angeles: Macmillan Company, 1970. (T)

*A Curriculum Guide for the Development of Body and Sensory Awareness for the Visually Impaired*. Springfield, Illinois: Illinois Office of Education, 1947. (T)

Dreikurs, Rudolph. *Children: The Challenge.* New York: Hawthorn Books, Inc., 1964. (T/P)

Duttamel, Thomas; Lin, Sen; Skelton, Angela; Hantke, Cheryl. Early parental perception and the high risk neonate. *Clinical Pediatrics*, 1974, *13*. (T)

Eddington, Connie; Lee, Teresa. A home centered program for parents. *American Journal of Nursing*, 1975, *75*, 59-62.

Efron, Marvin & DuBoff, Beth Reilly. *A Vision Guide for Teachers of Deaf-Blind Children*, 2nd ed. Raleigh: South Atlantic Regional Center for Services to Deaf-Blind Children through N. C. Department of Public Instruction, 1976. (T)

Fraiberg, Selma. *The Magic Years: Understanding and Handling the Problems of Early Childhood*. New York: Scribner, 1959. (T/P)

Ginott, Haim. *Between Parent and Child*. New York: Macmillan Publishing Company, Inc., 1973. (T/P)

Gordon, Thomas. *P.E.T.* New York: Peter H. Wyden, Inc., 1973.

James, Muriel & Jongleward, Dorothy. *Born to Win*. Reading, Massachusetts: Addison-Wesley Publishing Company, 1975. (T/P)

Johnston, Robert B. & Magrab, Phyllis. *Developmental Disorders: Assessment Treatment, Education*. University Park Press, 1976.

Klaus, Marshall H. & Avroy A. Funafaff. *Cure of the High-Risk Neonate*. Philadelphia, Pennsylvania: W. B. Saunders, 1973. (T)

Knobloch, H. & Passamarick, B. Developmental Prognosis, 3rd ed. Hagerstown: Harper & Row, 1974 (T)

Books for Teachers and/or Parents (Indicated by T/P) (continued)

Leeper, Sarah; Dales, Ruth; Skipper, Dora; & Witherspoon, Ralph. Good Schools for Young Children, 3rd ed. New York: Macmillan Company, Inc., 1974. (T)

Matheney, R. P. Testing Infant Intelligence Science, 1973. (T)

Meier, John. Screening and Assessment of Young Children at Developmental Risk, DHEW Publication, No. (05) 73-90. (T)

Platts, Mary E. Launch: A Handbook of Early Learning Techniques for the Preschool and Kindergarten Teacher. Washington, D. C.: Educational Service, 1972. (T)

RESA VIII Curriculum Improvement Center. At Home Instructional Units. West Virginia. (T/P)

Scarr-Salapatek-Williams. The effects of early stimulation on low birth weight infants. Child Development, 1973, 44, 94-101. (T)

Stant, Margaret A. The Young Child: His Activities and Materials. Englewood Cliffs, New Jersey: Prentice-Hall, 1972. (T)

Stoddard, Denis W.; Lodi, Robin; and Fitzgerald, Mary. Model Deaf-Blind Prevocational Training Project. Edited by Hank Baud and Denis Stoddard. Raleigh: South Atlantic Regional Center for Services to Deaf-Blind Children through N. C. Department of Public Instruction, 1976. (T)

Taylor, Billie. Blind Preschool. Colorado School for the Deaf, 1972. (T)

Yarrow, Rubenstein, and Pedersen. Infant and Environment. Washington, D. C.: Hemisphere Publishing Corp., 1975. (T)

Books for Children

Alexander, Martha. Nobody Asked Me If I Wanted [illegible] Baby Sister. New York: Dial, 1971.

Little boy wants to get rid of his baby sister until he decides she isn't so "dumb" after all.

Brown, Margaret Wise. The Country Noisy Book. New York: Harper & Row, 1940.

Muffin, a little dog, is sent to the country in a box. He is unable to see anything, but he can hear all the country sounds. Encourages the child to actively participate by giving them the animal noise and then asking, "What was that?"

Other Margaret Wise Brown books; The Indoor Noisy Book, The Summer Noisy Book.

Ets, Marie Hall. Just Me. New York: The Viking Press, 1965.

A little boy learns to imitate the walks of many country animals. Good for child participation.

Ets' Play With Me is also good.

Books for Children (continued)

Flack, Marjorie. Ask Mr. Bear. New York: Macmillan & Company, 1932.

Danny asks many animals what he can give his mother for her birthday. They all suggest their own products, but his mother already has them. Finally he asks Mr. Bear, who advises Danny to give her a bear hug. Good for child participation.

Flack's Angus series is also good.

Keats, Ezra Jack. The Snowy Day. New York: Viking Press, 1964.

Brief, vivid descriptions of Peter's awareness on a snowy, winter day.

Krauss, Ruth. The Growing Story. Wisconsin: E. M. Hale & Company, 1947.

Boy watches as seasons pass. Sees everything changing and growing, wonders if he is growing, too.

McGovern, Ann. Too Much Noise. Boston: Houghton Mifflin Company, 1967.

Peter's house was too noisy. It squeaked and creaked, and the leaves swished on the roof and the teakettle hissed. So the wise old man told him to put lots of animals in the house until it was so noisy that Peter couldn't stand it. After Peter got rid of all the animals, the house seemed so quiet!

Miles, Betty, and Blas, Joan. Just Think. New York: Knopf.

Picture book shows mothers who work, fathers who stay home with their children, and an athlete who is a girl.

Rogers, Fred. Mister Rogers Talks About. New York: Platt and Munk, 1974.

Covers experiences common to all children, such as; moving, fighting, going to the doctor, getting haircuts, and getting a new baby. Topics are discussed in a sensitive and honest manner.

Rogers, Fred. Tell Me Mister Rogers About. New York: Platt and Munk, 1975.

Experiences, such as going to the dentist, sleeping away from home, having pets die and learning to read presented in a simple, honest way. Excellent pictures and text make this a very conducive book for stimulating parent-child discussions.

Zolotov, Charlotte. William's Doll. New York: Harper & Row, 1972.

William wants a doll, but he encounters negative reactions from his parents. Grandmother realizes that he wants a doll so that he can practice being a parent.

Appendix B

## VALIDATION STUDY

## COST INFORMATION

The total expenditure was $60,730 and the total time in that grant period was eleven months. Based on the expenditure figure, the estimated cost in 1974 of operating this program by another school district is presented as follows.

| | Total Costs | | Development Costs | | Operational Costs | |
|---|---|---|---|---|---|---|
| | ESEA III | Other | ESEA III | Other | ESEA III | Other |
| 100 Administration | | | | | | |
| 1 Clerk-Typist | $6,733 | | | | $6,733 | |
| Supplies | 540 | | | | 540 | |
| Travel | 321 | | | | 321 | |
| Equipment | 450 | | $ 450 | | | |
| Other Admin. (telephone) | 720 | | | | 720 | |
| 200 Instruction | | | | | | |
| 1 Teacher | 13,704 | | | | 13,704 | |
| .5 Social Worker | 7,930 | | | | 7,930 | |
| 1.5 Aides | 10,302 | | | | 10,302 | |
| Contracted Services | | | | | | |
| Psychological testing | 1,440 | | | | 1,440 | |
| Staff & Parent training | 4,802 | | | | 4,802 | |
| Supplies | 1,800 | | 1,500 | | 300 | |
| Equipment | 1,500 | | 1,000 | | 500 | |
| 400 Health Services | 180 | | | | 180 | |
| 500 Pupil Transportation | 376 | | | | 376 | |
| Parent costs for transporting children | | | | | | |
| MCPS bus transportation of children | | $ 700 (MCPS) | | | | $ 700 (MCPS) |
| 800 Fixed Charges | 4,437 | | | | 4,437 | |
| 1230C Remodeling | 1,508 | | 1,508 | | | |
| 1230 Capital Outlay | | | | | | |
| Desks, files, tables, chairs, refrigerator | 1,624 | | 1,624 | | | |
| Total | $58,367 | $ 700 | $6,082 | | $52,285 | $ 700 |

The per-learner operational cost per month was found by dividing the number of participants into the operational costs and then dividing the resulting dividend by the number of months in the grant period.

$$\text{Per-learner Operational Cost per Month} = \frac{\dfrac{\text{Operational Cost (Total)}}{\text{Number of Participants}}}{\text{Number of Months in Grant Period}} = \begin{array}{ll} \$\ 184.00 & \text{Group I} \\ \$\ 47.00 & \text{Group II} \end{array}$$

Step #1: The total operational cost (sum of ESEA and other costs) was divided by the number of participants.

Step #2: The resulting dividend (per-learner operational cost) was divided by the number of months in the grant period.

Operational cost was $51,565. Of the total 7620 hours, the second group (Group 2 below) received approximately one tenth and thus their costs are one tenth of the total expenditure of $5,156, leaving $46,409 assigned to costs for the larger group receiving some service in the Learning Center programs (Group 1 below).

Group 1 (23 children)

$46,409 divided by 23 = $2,018 annual cost per pupil
$2,018 divided by 11 months = $184 per month per pupil

Group 2 (10 children)

$51,156 divided by 10 = $516 per pupil cost
$516 divided by 11 months = approximately $47 per pupil cost per month

The estimated average total number of hours per learner served during the last grant period were:

Group 1: 279 average total number of hours per learner served. (See explanation below)
Group 2: 77 average total number of hours per learner served.

How figure was derived:

If we divide the total expenditure for 1972-73 ($60,730) by 33 children, we get $1,841 per child; divided by 11 months, we arrive at $167 per child per month.

Since levels of service were so different in terms of time given to children, the hours were added for those attending the Learning Center programs (total 6,852 hours), and for those seen less frequently in private schools, special classes (i.e., Georgian Forest - deaf), and special schools (i.e., Cerebral Palsy Center), totalling 768 hours.

Group 1 - 6,852 hours divided by 23 children= approximately 297 hours per year
297 hours divided by 11 months = approximately 27 hours per month per child

Group 2 - 768 hours divided by 10 children= approximately 77 hours per year
77 hours divided by 11 months = approximately 7 hours per month per child

Estimated Start-up Costs

Start-up costs are one-time expenditures required to replicate this project or install it at another site.

1974 data on start-up costs of the following:

Staff Development $ 1,958

Vision staff meetings (2 hours weekly) 37 weeks = 74 hours
MCPS Workshops
Reading ( 2 hours week for 6 weeks) = 12 hours
Human Relations (3 hours) = 3 hours
89

89 x 22 = 1,958

Materials $ 1,500

Teaching Resources (Kits, i.e., Perceptual-Motor)
Records
Films, video tapes, etc. (MCPS resources)
(Most start-up cost for materials 71-72
approximately $1,000)

Facilities (rental, purchase, remodeling) $ 1,508

1 classroom 30' x 40'
1 classroom 30' x 40' remodeled to contain staff offices and conference room

(Note: $3,425 paid additionally 71-72 budget)

Contracted Services $ 1,830

(general description, e.g., evaluation, medical examinations)

Hearing evaluations @ $15.00 per session, total of 12 - $180.00

Psychological Assessment (periodic) total of 18 children @ $75.00 = $1,350.00.

Self concept study total 8 children. Pre and Post tests = $300.00

Equipment $ 1,450.00

| | |
|---|---|
| Administrative | $ 450 |
| Instructional<br>i.e., cassette,<br>record player | 1,000 |

Travel $ 321.00

During the planning phase, (first year) the Project Director visited seven programs and the teacher visited the Boston Center for Blind Children.

Other (Described below) $ 1,624.00

Capital outlay for furnishings (last completed budget year only)

Total estimated start-up cost $10,191.00

Give the total number of learners upon which the above total estimated start-up costs are based. 33 Number

Estimated Per-Learner Start-up Costs

Estimated per-learner start-up costs are found by dividing the total estimated start-up cost by the total number of learners: $309 = per-learner start-up cost

Figuring amounts for two levels of service, we calculate the following:

(4h) total start-up 10,919

Group I - 90% - 9,172 divided by 23 children = $399 per year - Learning Center Service

Group II - 1,019 divided by 10 children = $101 per year - Itinerant consultative and demonstration teaching service to private schools and teachers.

If figured per alternate:

10,191 divided by 33 = approximately $309 per pupil.

Since some start-up costs were expended during the first year, this amount could realistically be increased in proportion to cost-of-living differences in different parts of the country.

## Pilot Study - Project Validation
## Instructional Areas
## Summary of Findings

| Instructional Area | Number of Objectives | Total No. Children | Total No. Objectives | Percent Accomplished | Scope of Objectives |
|---|---|---|---|---|---|
| Auditory Language | 6 | 6 | 36 | 80% | Receptive language to imitation of sounds |
| Body Awareness | 11 | 6 + 4 | 78 | 60% | Identification of body parts and of relation and position |
| Motor Development - Orientation & Mobility | 9 | 5 + 2 | 47 | 70% | Creeping and crawling to walking from one location to another |
| Perceptual-Motor | 10 | 8 | 80 | 56% | Gross motor development to the development of relational concepts |
| Personal-Social-Daily Living Skills | 10 | 6 | 55<br>(66-5) | 54% | Holding a bottle to putting on outer garments |
| Tactual Awareness | 13 | 6 | 78 | 55% | Four areas including thermal, vibration, weight and pressure |
| Vision Stimulation | 75 | 8 | 600 | 46% | Discrimination of solid black forms to reading print |
| Vision Training | 8 | 4 | 32 | 68% | Development of fixation and tracking visual search and perception of figure ground |
| Art | 8 | 8 | 64 | 51% | Expressing feelings about visual experiences to working on group art projects |
| Language Arts | 22 | 8 | 176 | 49% | Describing experiences and beginning manuscript writing to responding to literature, dramatization |
| Mathematics | 17 | (10 -7- 4) | 121 | 53% | Counting, to simple addition and subtraction problem solving |
| Music | 8 | 8 | 64 | 62% | Hear, identify and imitate pitch to recognize contrasts in mood, i.e. tempo, dynamics |
| Science | 6 | 8 | 48 | 47% | Developing awareness of the environment to perceiving an orderliness in nature |
| Social Education & Citizenship | 17 | 8 | 136 | 83% | Concern for the common good, caring for one's property and that of others |
| Social Studies | 9 | 8 | 72 | 61% | Recognize effects of elements on people's lives to relating dates and locations to personal experiences |
| TOTALS | 229 |  | 1,687 | 59% | (Language Stimulation - Started 3/73) |

SAMPLE ANALYSIS

## BODY AWARENESS

### I. IDENTIFICATION - NUMBER - PROPORTION

| Instructional Objectives | Number of Assessment Items | Criteria | Total Number of Children | Percent Accomplished | Comments |
|---|---|---|---|---|---|
| 1. To identify each part of the body by touching it as the name of the part is said orally | 50 items - 90% to be correctly indicated | 45 of 50 items | 10 | 60% | |
| 2. To identify body parts of two in number, i.e. 2 feet, 2 ears, 2 eyes, etc., by touching them as the "Two Little" poem is recited | 10 items - 90% required | 9 of 10 items | 10 | 60% | |
| 3. To count and present fingers to the tune of "Ten Little Fingers" | Complete Activity | All of it | 10 | 60% | |
| 4. To demonstrate an understanding of proportion or differences in people sizes by playing a finger game "See My Family", (some are short, some are tall) | Complete Activity | All of it | 6 | 100% | |
| 5. To identify parts and proportions verbally as he finds his nearest configuration among mannequins and cardboard cutouts of children | Complete Activity | All of it | 6 | 50% | |
| 6. To demonstrate an awareness of the location of parts by identifying missing or misplaced parts | 20 parts | 18 of 20 items | 6 | 66% | |
| 7. To demonstrate an understanding of the use of body parts by singing or saying the use, i.e., "We are using our feet to __________." | 10 items | 10 required | 6 | 83% | |

## SAMPLE

## ANALYSIS OF ACHIEVED OBJECTIVES

by subject area

Body Awareness
Name of area

Date initiated September 1972

Date of evaluation March 1973

Analysis:

✗ = objective is appropriate not accomplished
✓ = objective is accomplished

| Students | Objectives | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | No. Objs. Achieved | % Accomp. |
| Carol | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | | 8 | |
| Diane | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | | 8 | |
| Jason | ✗ | ✗ | ✗ | | | | | | | | | | 0 | |
| John | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | 11 | |
| Lisa | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✓ | ✗ | ✗ | ✗ | ✗ | | 5 | |
| Marni | ✗ | ✗ | ✗ | | | | | | | | | | 0 | |
| Ricky | ✗ | ✗ | ✗ | | | | | | | | | | 0 | |
| Rose Marie | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | | 10 | |
| Sonya | ✗ | ✗ | ✗ | | | | | | | | | | 0 | |
| Tiesa | ✓ | ✓ | ✓ | ✓ | | | | | | | | | 5 | |
| No. Objectives Appropriate | 10 | 10 | 10 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | (78) | (47) | |
| Percent Accomplished | 60 | 60 | 60 | 100 | 50 | 66 | 83 | 50 | 33 | 33 | 16 | | | |

| No. Children | Percent Objectives Accomplished |
|---|---|
| 1 | 100% |
| 1 | 91 |
| 2 | 72 |
| 2 | 45 |

Comments

Four children, ages 1 to 3, for whom these objectives were appropriate have not achieved them

11 objs. x 6 chn. = 66 + 12 chn. = 78 objs.

60% of 78 objectives accomplished

## Appendix C SELECTED EARLY CHILDHOOD PROGRAMS

Amazing Life Games Theater, by Ethel Young. Houghton Mifflin Co., Boston, 1971.

Autosort Language Arts Program, Levels A and B. Bell & Howell, Chicago, 1968.

Bowmar Early Childhood Series, by Hanes, Woodbridge, Curry, Crume. Bowmar Publishing Corp., Glendale, Calif., 1968, 1969.

Concept Training Curriculum for Children Ages Two to Five, by Francis H. Palmer. Div. of Educational Research & Development, State University of New York at Stony Brook, Stony Brook, N. Y., 1971.

Distar, Language I, by S. Engelmann, J. Osborn, T. Engelmann. Science Research Associates, Chicago, 1969.

Early Childhood Curriculum: A Piaget Program, by Celia Stendler Lavatelli. American Science & Engineering, Boston, 1970.

Early Childhood Discovery Materials, by Bank Street College. Macmillan Co., New York City, 1968.

Effects of Sociodramatic Play on Disadvantaged Preschool Children, by Sara Smilansky. John Wiley & Sons, New York City, 1968.

Experimental Development Program, by M. Stanek & F. Muson. Benefic Press, Chicago, 1966.

Instructional Concepts Program, by Southwest Regional Laboratories. Ginn & Co., Lexington, Mass., 1972.

Language for Preschool: A Curriculum in Oral English, by D. Adkins. Center for Research in Early Childhood Education, University of Hawaii, Honolulu, 1970.

Language Lotto, by Lassar Gotkin. Appleton-Century-Crofts, New York City, 1966.

Matrix Games, by Lassar Gotkin. Appleton-Century-Crofts, New York City, 1967.

New Nursery School, By G. Nimnicht, O. McAfee, J. Meier. General Learning Corp., New York City, 1969.

Open Court Kindergarten Program, by C. Bereiter, A. Hughes. V. Anderson. Open Court Publishing Co., LaSalle, Ill., 1970. (Basic vocabulary, classification and thinking skills materials only.)

Oral English, by H. A. Thomas & H. B. Allen. Economy Co., Oklahoma City, 1968.

Peabody Language Development Kits, Level P, by Dunn, Horton & Smith. American Guidance Service, Circle Pines, Minn., 1968.

Words and Action, by F. & G. Shaftel. Holt, Rinehart & Winston, New York City, 1967.

## APPROACHES FOR MEASURING LANGUAGE IN YOUNG CHILDREN

*The Bzoch-League Receptive Expressive Emergent Language Scale*. The Anhinga Press, 420 Boulevard, P. O. Box 13501, Gainesville, Florida 32604.

*Communication Evaluation Charts*. Educators Publishing Services, Inc., 75 Moulton Street, Cambridge, MA 02138.

Flynn, Tim. *Pre-Kindergarten Scale*. Carbondale: Southern Illinois University, Department of Special Education, 1972.

Hines, Brainard W. *Analysis of Intelligence Scores*. Charleston, W. Va.: Appalachia Educational Laboratory, 1971.

Hines, Brainard W. *Detailed Analysis of the Language Development of Children in Ael's Preschool Education Program*. Charleston, W. Va.: Appalachia Educational Laboratory, 1971.

Hoepfner, Ralph; Stern, Carolyn; and Nummedal, Susan G. *Preschool/Kindergarten Test Evaluations*. Los Angeles, Calif.: UCLA Graduate School of Education, 1971.

*The Houston Test for Language Development*. The Houston Test Company, P. O. Box 35152, Houston, Texas 77035.

Melear, John D. "An informal Language Inventory," *Elementary English*, 51, April 1974: 508-12.

Potts, Marion. *A Technique for Measuring Language Production in Three, Four, and Five-Year-Olds*. Available from ERIC Document Reproduction Service in microfilm or hard copy. No. F-3454 1973.

*Receptive-Expressive Language Evaluation Adapted for Use With Blind Children* from Zimmerman, Steiner, and Evatt's "Preschool Language Scale" and Laney's "Assessment of Language Development." Sherry Raynor, Director, Infant Program for Visually Impaired, 2630 W. Howell Road, Mason, Michigan 48854

Rosen, Pamela, and Horne, Eleanor V. Language Development Tests: *An Annotated Bibliography*. Princeton, N.J.: Educational Testing Service, 1971.

*The University of Wisconsin Receptive - Expressive Language Scale*. Francis X. Blair, Ph.D., Department of Exceptional Education, The University of Wisconsin, Milwaukee, Wisconsin 53200.

Verbal Language Development Scale. American Guidance Service, Inc., Publishers Building, Circle Pines, Minnesota 55014.

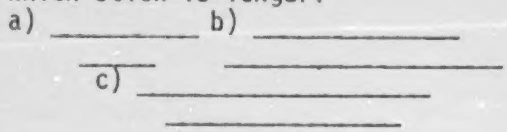
Language Evaluation Scale*
Francis X. Bair, Ph.D.
THE UNIVERSITY OF WISCONSIN - MILWAUKEE
Department of Exceptional Education
Language and Learning Disorders Program

## RECEPTIVE LANGUAGE*

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 1. | 6 months | Locates source of bell rung out of his sight. | Gesell |
| 2. | 9 months | Responds to name or "no-no" (activity ceases.) | Gesell |
| 3. | 10 months | Waves "bye-bye" or "patty-cakes" to verbal request. | Gesell |
| 4. | 12 months | Comes when called; goes short distances to particular points when directed. | Vineland |
| 5. | 13 months | Give toy on request accompanied by gesture. (Examiner holds out hand for toy child is holding.) | Gesell |
| 6. | 14 months | Recognizes a few objects by name. | Gesell |
| 7. | 16 months | Recognizes names of a dozen or more familiar objects when he hears them. (And presumably sees them and can point to them.) | Mecham |
| 8. | 18 months | Recognizes (and points to) hair, mouth, ears, and hands when they are named. ("Where are your eyes?" etc.) | Mecham |
| 9. | 18 months | Throws ball to examiner on request and carries out two of the following instructions:<br>"Put it on the chair."<br>"Put it on the table."<br>"Give it to mother."<br>"Give it to me." | Gesell |
| 10. | 18 months | Identifies one picture on card. "Show me the dog." | Gesell |
| 11. | 21 months | Identifies, by pointing, 3-5 pictures when they are named. Pictures include: dog, cup, shoe, house, flag clock, star, leaf, basket, book, spoon, comb, and brush. | Mecham<br>Gesell |

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 12. | 18-21 months | Points to parts of a doll on request-finds one part at 18 months and an additional part for each succeeding months up to 22 months. | Cattell |
| 13. | 21 months | Carries out three instructions with the ball. (See item #9) | Gesell |
| 14. | 24 months | Carries out four instructions with the ball. (See item #9) | Gesell |
| 15. | 24 months | Identifies five or more pictures. | Gesell |
| 16. | 24 months | "Look at," "Show me," "Give me," spoon, comb, and hairbrush, shoe, cup. (life-size objects) | Hausserman |
| 17. | 2-6 years | Identifies seven pictures. (see item #11) | Gesell |
| 18. | 2-6 years | Understands "just one block." Selects one block from group in response to "Give me just one block." | Cattell |
| 19. | 2-6 years<br>3 or more | Recognizes objects by function one.<br>"Show me what we drink out of."<br>"Show me what we buy candy with."<br>"Show me what goes on our feet."<br>"Show me what we can cut with."<br>"Show me what we ride in."<br>"Show me what we use to iron clothes." | Terman |
| 20. | 2-6 years | Repeats two digits:<br>"Listen; say 2. Now say ___."<br>4-7<br>6-3<br>5-8 | Terman |
| 21. | 2-6 years (4+)<br>3 (5+) | Recognizes objects by function<br>"Show me the one that . . . .<br>a) we cook on (stove)<br>b) we sleep in (bed)<br>c) a man smokes (pipe)<br>d) we sit on (chair)<br>e) we sweep with dust into (dust pan)<br>f) we cut with (scissors) | Terman |
| 22. | 2-6 years | Size Concept: Two teaspoons, one doll spoon. (Place perpendicular to child's line of vision, and that | Hausserman |

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 22.(cont.) | | one and this one." "Show me the tiny little spoon." | |
| 23. | 2-6 years | Recognizes pictures by function. (Spoon, comb, shoe) "Listen carefully. Show me the picture of the thing we use to eat our cereal." "Which thing does mother need to fix your hair?" "Can you find something that goes on your foot?" | Hausserman |
| 24. | 2-6/3 years | Identifies action in pictures<br>"Show me the boy (girl) . . ."<br>a) walking<br>b) running<br>c) jumping<br>d) sitting | Mecham |
| 25. | 2-6/3 years | Recognition of action in image (two 10 x 6 colored pictures of children sleeping in bed and eating at a table.)<br>"Look at these nice pictures."<br>"Where (show me) are the children sleeping in their beds?"<br>"Show me where the children are eating their dinner." | Hausserman |
| 26. | 3 years | Repeats one series of 3 digits<br>"Say 4-2. Now say . . ."<br>6-4-1<br>3-5-2<br>8-3-7 | Gesell<br>Terman |
| 27. | 3 years | Comprehension of one question.<br>"What must you do when you are sleepy?" (hungry, cold) | Gesell |
| 28. | 3 years | Preposition directions (must respond to at least two)<br>"Put the ball . . ."<br>a) on the chair<br>b) under the chair<br>c) in front of the chair<br>d) beside the chair<br>e) back of the chair | Gesell<br>Terman |
| 29. | 3-0/3-6 years | Interpretation of pictures<br>(Same pictures as in Item #25)<br>"Look at these two pictures. See what they are doing here and here." | Hausserman |

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 29. (cont.) | | "Which one tells you (or 'makes you think') that it is night time?" | |
| 30. | 3-6 years<br>(3 out of 3) | Comparison of sticks (2" stick)<br>(2-1/2" stick)<br>"Which stick is longer?"<br><br>a) b) c) | Terman |
| 31. | 3-6 years<br>(3 out of 3) | Comparison of balls (2 cut out circles) "Which ball is bigger?" | Terman |
| 32. | 4 years | Comprehension of these questions "What must you do when you are: sleepy, hungry, cold?" | Gesell |
| 33. | 4 years | Naming objects from memory. Place three objects in a row before the child. Ask him to name each (if he cannot, examiner should do so.) Screen the objects with a board and cover the one object with box. "Which did I hide?" (Suggested objects: auto, dog, shoe, cat, spoon, locomotive, doll, scissors, thimble, box.) | Terman |
| 34. | 4 years | Carries out four individual commands using prepositions. (See item #28) | Gesell |
| 35. | 4 years (3+) | Object identification through function "Show me the one:<br>a) we cook on<br>b) we carry when it's raining<br>c) that gives us milk<br>d) that we read<br>e) that grows on a tree<br>f) that the hen lays" | Terman |
| 36. | 4 years (2+) | Number Concept of 2<br>a) Put 2 blocks in front of 5 blocks. Ask, "How many?"<br>b) Remove blocks and present 2 square beads, asking "How many?"<br>c) Remove beads and place 4 beads before 5 and say, "Give me 2 beads and you take 2." | Terman |

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 37. | 4 years (2+) | Opposite analogies.<br>Say:<br>a) Brother is a boy; sister is a ______.<br>b) In daytime it is light; at night it is ______.<br>c) Father is a man; mother is a ______.<br>d) The snail is slow; the rabbit is ______.<br>e) The sun shines during the day; the moon at ______. | Terman |
| 38. | 4 years (2+) | Comprehension<br>a) Why do we have houses?<br>b) Why do we have books? | Terman |
| 39. | 4-6 years (1+) | Repeating 4 digits.<br>"I am going to say some numbers and when I am through, I want you to say them just the way I do. Listen carefully and get them just right."<br>a) 4-7-2-9<br>b) 3-8-5-2<br>c) 7-2-6-1 | Terman |
| 40. | 4-6 years (2+) | "What is a ____ made of?"<br>a) chair<br>b) dress<br>c) shoe | Terman |
| 41. | 4-6 years (2+) | Opposite Analogies<br>a) Brother is a boy; sister is a _____.<br>b) A table is made of wood; a window is made of ____.<br>c) A bird flies; a fish ______ .<br>d) The point of a cane is blunt; the point of a knife is ____.<br>e) An inch is short; a mile is ____. | Terman |
| 42. | 4-6 years (1+)<br>5 years (2+) | Comprehension<br>a) "What do we do with our eyes?"<br>b) "What do we do with out ears?" | Terman |
| 43. | 5 years | Can identify (point to) on request:<br>a) penny<br>b) nickel<br>c) dime | Gesell |
| 44. | 5 years (2+) | Number concept of three. | Terman |

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 44. (cont.) | | a) Give me three blocks.<br>b) Give me three beads.<br>c) Give me two blocks and one bead. | |
| 45. | 5 years | Can identify four colors. | Gesell |
| 46. | 5 years | Carries out, in order, a command containing three parts, e.g. "Pick up the ball, put it on the table, and bring me the book." | Gesell |
| 47. | 5 years | Definitions.<br>a) "What is a ball?"<br>b) "What is a hat?"<br>c) "What is a stove?" | Terman |
| 48. | 5 years (2+) | Memory for sentences.<br>"I want you to say something for me. Say 'big boy (or girl). Now say 'I am a big boy (or girl).' Now say . . .<br>a) 'Jane wants to build a big castle in her playhouse.'<br>b) 'Tom has lots of fun playing ball with his sister.'" | Terman |
| 49. | 5 years (2+) | Counting four objects.<br>Present the objects in a row in following series:<br>a) 4 blocks<br>b) 4 beads<br>c) 4 pennies | Terman |
| 50. | 6 years | Knows right and left. | Gesell |
| 51. | 6 years | Number concepts to 10.<br>Responds correctly to 3 out of 4 requests as: "Give me three blocks." "Give me 9 blocks, etc., when twelve are available )." | |
| 52. | 6 years | Understands the following concepts:<br>a) more and less<br>b) a pair<br>c) many and few<br>d) across<br>e) morning and afternoon | Hausserman |
| 53. | 6-7 years | Reads on pre-primer level.<br>Is able to read a pre-primer book and recognizes the majority of the words without having to refer to the | Mecham |

| Item | Language Age | Language Behavior | Normative Scale |
|---|---|---|---|
| 53. (cont.) | | pictures in the books. | |

* Copies of this scale are obtainable from: Francis X. Blair, Ph.D., Department of Exceptional Education, The University of Wisconsin - Milwaukee.

THE UNIVERSITY OF WISCONSIN-MILWAUKEE
Department of Exceptional Education
Special Learning Disabilities Laboratory

## LANGUAGE EVALUATION SCALE
## EXPRESSIVE LANGUAGE *

| Item | Language Age | Language Behavior | Normative Source |
|---|---|---|---|
| 1. | 6 mo. | Vocalizes to toys; vocalizes for social contact. | Gesell |
| 2. | 7 mo. | Combines vowel sounds; says m-m-mm when he cries; vocalizes recognition of familiar people. | Gesell |
| 3. | 8 mo. | Says "da-da" or "ma-ma" in babbling but not with reference to parents; babbling acquires inflection. | Van Riper |
| 4. | 10 mo. | Vocalizes "ma-ma" and "da-da" and has one other "word"; imitates sounds such as cough or tongue click. | Gesell<br>Mecham |
| 5. | 12 mo. | Echolalia: imitates a number of syllables as well as sounds. Vocalizes two "words" other than "mama" and "dada". | Van Riper |
| 6. | 12-14 mo. | Accompanies gestures by vocalization, e.g. babbles while pointing; spontaneously tries to imitate sounds such as adult exclamation. | Van Riper |
| 7. | 12-14 mo. | Marks with a pencil or crayon; amuses self for brief periods in this way. | Vineland |
| 8. | 15 mo. | Has four or five words including names; uses jargon but usually indicates his wants by pointing and vocalizing. Says "tata" or equivalent for "thank you". | Gesell |
| 9. | 18 mo. | Has a vocabulary of as many as 10 sizeable words; he names "ball" when shown it. May name one picture (dog, shoe, cup, etc.). | Gesell |
| 10. | 18 mo. | Asks for wants by naming objects: milk, cookie, etc. | Cattell |
| 11. | 18 mo. | Leaves off beginning and ends of phrases; common expression is "all gone." | Metraux |
| 12. | 21 mo. | Has vocabulary of 20 words; combines two or three words that express two or more different ideas, e.g. "daddy go bye-bye (not just "go by-bye"); echoes | Gesell |

| Item | Language Age | Language Behavior | Normative Source |
|---|---|---|---|
| 12. (cont.) | | two or more last words. | |
| 13. | 21-24 mo. | Expressive vocabulary of at least 25 words, mostly nouns, some verbs, adverbs and adjectives; uses names of several familiar objects spontaneously and not merely when they are presented; talks in short sentences or phrases or subject-object combinations in a practically useful way. | Gesell |
| 14. | 2 years | Vocabulary may exceed 50 words; jargon is discarded in favor of understandable but simple three word sentences; uses pronouns "I", "me" and "you" although not always correctly, He soliloquizes, verbalizing his immediate experience, referring to himself by name ("Johnny fall down", etc.) Common expressions "mine" (me). | Gesell<br>Metraux |
| 15. | 2 years | Names three or more common pictures such as those found in a Golden Book Dictionary; names as he leafs through book. | Gesell<br>Mecham |
| 16. | 2 years | Verbalizes for food, drink, and toilet. Asks for "another ________________", wanting one for each hand. | Gesell<br>Mecham |
| 16a. | 2-6 years | (repeats two digits) See Receptive Language. | Terman |
| 17. | 2-6 years | Gives his full name. | Gesell |
| 18. | 2-6 years | Gives use of some of the test objects (ball, shoe, penny, pencil, etc.). Names test objects: shoe, watch, telephone, flag, pack knife. | Gesell<br>Terman |
| 19. | 2-6 years | Refers to self by pronouns rather than by name. | Gesell |
| 20. | 2-6 years | Speech activities are repetitive. | Gesell |
| 21. | 2-6 years | Common expression is "I did". | Metraux |
| 22. | 3 years | Vocabulary has innumerable words; he speaks in well-formed simple sentences. | Gesell |
| 23. | 3 years | Uses some plurals. | Gesell |

| Item | Language Age | Language Behavior | Normative Source |
|---|---|---|---|
| 24. | 3 years | Names pictures, and on request tells the action, e.q. "Baby is sleeping." | Gesell |
| 25. | 3 years | Knows a few rhymes. (Little Bo-Peep, Miss Muffet, etc.) | Gesell |
| 25a. | 3 years | Copies circle; imitates cross. (See Visuo-Motor Behavior.) | Gesell |
| 25b. | 3 years | Repeats three digits. (See Receptive Language). | Terman |
| 26. | 3 years | Names eight pictures correctly (cup, kitty, shoe, house, flag, clock, star, leaf, basket, book). | Gesell |
| 27. | 3 years | Tells sex correctly in response to "Are you a little boy or a little girl?" | Gesell |
| 28. | 3 years/3-6 | Relates experiences. Gives simple accounts of experiences or tells stories (unprompted) with sequential and coherent content and relevant detail. | Vineland |
| 29. | 3-6/4 years | Names all primary colors when shown. | Mecham |
| 30. | 4 years | Vocabulary is in excess of 1500 words. | Miller, et al. |
| 31. | 4 years | Counts three objects, pointing to each in turn. | Gesell |
| 31a. | 4 years | Names objects from memory. (See Receptive Language.) | Terman |
| 32. | 4 years (2+) | Has memory for sentences. Say "big boy". Now say, "I am a big boy". Now say,<br>a) "I like to eat ice cream cones."<br>b) "My watch has two hands."<br>c) "Give me just one of them." | Terman<br>Gesell |
| 33. | 4/4-6 years | Reads and tells a familiar story by way of pictures ("Three Bears", etc.). | Mecham |
| 33a. | 4-6 years | Repeats four digits. (See Receptive Language.) | Terman |
| 34. | 4-6/5 years | Prints simple words such as first name or a few familiar words not using copy. Correct spelling is not essential. | Vineland |

| Item | Language Age | Language Behavior | Normative Source |
|---|---|---|---|
| 35. | 5 years | Counts 10 objects, pointing to each in turn. | Gesell |
| 36. | 5 years | Gives a descriptive comment while naming the objects in a composite picture. | Gesell |
| 37. | 5-5/6 years | Relates fanciful tales: Tells an experience or plan of action which is imaginative only. | Mecham |
| 38. | 5-5/6 years | Names penny, nickel, dime; asks for them discriminately for varying purposes. | Mecham |
| 38a. | 5-5/6 years | Memory for sentences (See receptive language.) | Terman |
| 39. | 5-6/6 years | Can count to 30 by ones upon request; does not need help after beginning to count. | Mecham<br>Gesell |
| 40. | 5-6/6 years | Asks meaning of words: "What does mean?", or asks a similar question. | Mecham |
| 41. | 6 years | Vocabulary in excess of 2500 words. | Miller, et al |
| 42. | 6-7 years | Can tell a familiar story ("Three Bears," etc.), including most of the detail. | |

* Copies of this scale are obtainable from: Francis X. Blair, Ph.D., Department of Exceptional Education, The University of Wisconsin-Milwaukee.

INSTRUCTIONAL MATERIALS

LANGUAGE DEVELOPMENT

| CODE | BOOKS | TEACHING AIDS | RECORDS |
|---|---|---|---|
| L.D. - 1 | 1. "Put Your Finger in the Air", from Eye Winker, Tom Winker, Chin Chopper, Fifty Musical Finger Plays, by Tom Glazer, Doubleday and Company, Inc., Garden City, N.Y., 1973<br>2. "Clap Your Hands" Fingerplay from Juba This and Juba That, Virginia A. Tashjian, Little, Brown and Company. Boston, 1969 | 1. Disassembled mannequin, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn., 55041<br>2. "My Face and Body", flannelboard set, No. 42814 A, Learning Resource Center, Inc., 10655 S.W. Greenburg Road, Portland, Oregon, 97223<br>3. BEBABO, lifesize figure with removable parts, (flannelboard), No. 122-094, ABC School Supply, Inc., 437 Armour Circle, N.E., P.O. Box 13084, Atlanta, Georgia, 30324<br>4. Dydee Doll, H 139, Childcraft Education Corp., 20 Kilmer Road, Edison, New Jersey, 08817 | 1. "Looby Loo" from Rainy Day Record, Bowmar, No. 255-306, ABC School Supply, Inc., 437 Armour Circle, N.E., P.O. Box 13084, Atlanta Georgia, 30324<br>2. "Wake Up", from Songs to Grow on, Vol. 1, Nursery Days, Woody Guthrie, Folkways Records and Service Corp., N.Y.C., 1950<br>3. "Hokey Pokey" from Basic Concepts through Dance, EALP 601 Educational Activities Inc., Freeport, N.Y. 11520 |
| L.D. - 2 | 1. "My Eyes Can See" fingerplay from Juba This and Juba That, Virginia A. Tashjian, Little, Brown, Co., Boston, 1969<br>2. The Busy Body Book (A Tell-A-Tale Book) by Whitman, Western Publishing Co., Inc., Racine, Wisc., 1975 | | 1. "If You're Happy and You Know It" Vol. 1, Everyday Skills for Early Childhood and Special Education, Classroom Materials Co., 93 Myrtle Drive, Great Neck, N.Y. 11021 |
| L.D. - 3 | 1. "Dressing" fingerplay from Let's Do Fingerplays, Marion F. Grayson, Robert B. Luce, Inc., Washington, 1962 | 1. Boy and girl mannequins with clothes, Peabody Language Development Kits, Level #P, American Guidance Service, Inc. Publisher's Building, Circle Pines, Minn., 55014<br>2. Flexi-Dexi Family Unit, 4 figures: man, woman, boy, girl each with a choice of indoor-outdoor clothing, No. 569-254, ABC School Supply, Inc. P.O. Box 13084, Atlanta, Georgia, 30324 | 1. "See My Dolly" from Songs to Grow On, Vol. 1, Nursery Days, Woody Guthrie, Folkways Records and Service, Corp., N.Y.C., 1950 |
| L.D. - 4 | 1. "How Many People Live at Your House?" from Singing Fun, Lucille F. Wood and Louise B. Scott, Webster Division, McGraw Hill Book Company, New York | 1. Family Group hand puppets: white, No. 525-907; black, No. 525-952, ABC School Supply, Inc. P.O. Box 13084, Atlanta, Georgia, 30324 | |

## INSTRUCTIONAL MATERIALS

## LANGUAGE DEVELOPMENT

| CODE | BOOKS | TEACHING AIDS | RECORDS |
|---|---|---|---|
| L.D. - 5 | | 1. Picture Cards of family members, #P1-P7 and #X13, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn., 55014<br>2. Flannelboard pictures of family members, "The Family", Unit 2 Learning to Develop Language Skills, Early Childhood Enrichment Series, Milton Bradley, Co., Springfield, Mass., 01101<br>3. Three-Generation Family: White, No. 422-153: Black, No. 422-206, ABC School Supply, Inc. P.O. Box 13084, Atlanta, Georgia, 30324<br>4. Desk Top Activity Kit - My Home and Family, #263-003, Kaplan School Supply Corp., 600 Jamestown Road, Winston-Salem, N.C., 27103 | 1. "Clean-O" from Songs to Grow On, Vol. 1 Nursery Days, Woody Guthrie, Folkways Records and Service Corp., N.Y.C., 1950 |
| L.D. - 6 | | 1. My Family play people, 56115 A, Learning Resource Center, Inc., 10655 S.W. Greenburg Road, Portland, Oregon, 97223 | |
| L.D. - 7 | | 1. Picture cards X14 -X20, Peabody Language Development Kits, Level #P American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn., 55041<br>2. Fisher Price Play Family House, #516-800, ABC School Supply, Inc., P.O. Box 13084, Atlanta, Georgia, 30324<br>3. Puzzle: Look Inside the House, No. 042-108, ABC School Supply, Inc., P.O. Box 13084, Atlanta, Georgia, 30324<br>4. Story Sets, Three Bears, 476-473, Beckley-Cardy Company, 1900 N. Narragansett Avenue, Chicago, Ill., 60639 | |
| L.D. - 8 | | 1. Flannelboard pictures of furnishings, "The Family", Unit 2, Learning to Develop Language Skills, Early Childhood Enrichment Series, Milton Bradley, Co, Springfield, Mass., 01101 | |

## INSTRUCTIONAL MATERIALS

## LANGUAGE DEVELOPMENT

| CODE | BOOKS | TEACHING AIDS | RECORDS |
|---|---|---|---|
| | | 2. Furniture and appliance pictures H1-H22, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn., 55014 | |
| L.D. - 9 | | | 1. "Sounds of the Home", record #78, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn, 55014 |
| L.D. - 10 | | 1. Plastic fruits and vegetables, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn., 55014<br>2. Food pictures FL -F51, Peabody Language Development Kits, Level #P, (see above)<br>3. Puzzle: "Fruits" No. 219-238, Beckley-Cardy, 1900 N. Narragansett Avenue, Chicago, Ill., 60639<br>4. Plastic fruit set, No. 023-101 and plastic vegetables set, No. 023-156, ABC School Supply, Inc, P.O. Box 13084, Atlanta, Georgia, 30324 | 1. "Food Chants" from Album #2, Everyday Skills for Early Childhood and Special Education, Classroom Materials Co., 93 Myrtle Drive, Great Neck, N.Y., 11021 |
| L.D. - 11 | | (Continue with same materials) | |
| L.D. - 12 | | 1. Fisher Price Play Family Village, No. 517-024, ABC School Supply, Inc., P.O. Box 13084, Atlanta, Georgia, 30324<br>2. Picture cards of persons in the environment, P8-P18, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building, Circle Pines, Minn., 55014<br>3. Large-Scale Community helpers set, No. 422-304, ABC School Supply Co., P.O. Box 13084, Atlanta, Georgia, 30324 | |

INSTRUCTIONAL MATERIALS

LANGUAGE DEVELOPMENT

| CODE | BOOKS | TEACHING AIDS | RECORDS |
|---|---|---|---|
| L.D. - 13 | | 1. Flannelboard pictures "Farm Animals", Unit 2 Learning to Develop Language Skills, Early Childhood Enrichment Series, Milton Bradley, Co., Springfield, Mass., 01101<br>2. Simple "Animal Puzzles", No. P102, Developmental Learning Materials, 3505 N. Ashland Avenue, Chicago, Ill.,60657<br>3. Ani-space puzzle, No. 360-353, ABC School Supply, Inc., P. O. Box 13084, Atlanta, Georgia 30324<br>4. Puzzles, Ruth Cheves Program 1, (graduated difficulty), Part 1: Fruit and Animal Puzzles, New York Times, Teaching Resources<br>5. Farm Animals (Model) #501-272, Kaplan School Corp., 600 Jonestown Road, Winston-Salem, N.C., 27103<br>6. Zoo animals (Model) #501-168, Kapian School Supply Corp., 600 Jonestown Road, Winston-Salem, N.C., 27103<br>7. Play Family Farm, 930-420, Beckley-Cardey, Co., 1900 N. Narragansett Avenue, Chicago, Ill., 60639<br>8. Puzzle "Pets by Judy", 933-820, Beckley-Cardy Company, 1900 N. Narragansett Avenue, Chicago, Ill., 60639 | 1. Animal Sounds, record #6, Peabody Language Development Kits, Level #P, American Guidance Service, Inc., Publisher's Building Circle Pines, Minn., 55014<br>2. "Had a Cat" from Album, Special Songs for Special Children, Classroom Materials Co., 93 Myrtle Drive, Great Neck, N.Y., 11021 |
| L.D. - 14 | | 1. Size board for teaching "big and little" #608, p. 102, Vol. 2, Educational Teaching Aids Division, A. Daigger and Co., 159 W. Kinzie, Chicago, Ill,. 60610<br>2. Play Cubes, graduated in primary colors, No. 015-156, ABC School Supply, Inc., P.O. Box 13084, Atlanta, Georgia, 30324 | 1. "Dance Around" from Songs to Grown On, Vol. 1, Nursery Days, Woody Guthrie, Folkways Records and Service Corp., N.Y.C., 1950 |

INSTRUCTIONAL MATERIALS

LANGUAGE DEVELOPMENT

| CODE | BOOKS | TEACHING AIDS | RECORDS |
|---|---|---|---|
| L.D. - 15 | 1. "Great Big Ball" fingerplay from Let's Do Fingerplays, Marion F. Grayson, Robert B. Luce, Inc., Washington, 1962 | 1. Add-a-rack, No. 572-302, ABC School Supply Inc., P. O. Box 13084, Atlanta, Georgia, 30324<br>2. Wooden Counting Bar, No. 125-652, ABC School Supply, Inc., P.O. Box 13084, Atlanta, Georgia, 30324<br>3. Jumbo Peg Board, No.90317A, Learning Resource Center Inc., 10655 S.W. Greenburg Road, Portland, Oregon, 97223 | 1. "We Are Counting Numbers Today", Vol. 1, Everyday Skills for Early Childhood and Special Education, No. 541-854, ABC School Supply, Inc., P. O. Box 13084, Atlanta, Georgia, 30324 |

## EXHIBIT 2.2
## Estimates of Incidence of Visual Disorders: Chronic Disease Conditions[1,2]

| Diagnosis Group | Incidence in Thousands of Cases Per Year[3] | | |
|---|---|---|---|
| | Males | Females | Total |
| Neoplasms of the Eye | 4 | 3 | 7 |
| Eye Complications of Diabetes | 14 | 32 | 46 |
| Corneal Ulcer and Opacity | 55 | 49 | 104 |
| Strabismus | 189 | 214 | 403 |
| Cataract | 333 | 581 | 912 |
| Detachment of the Retina | 13 | 11 | 25 |
| Glaucoma | 69 | 109 | 178 |
| Congenital Eye Disorders | 29 | 20 | 49 |
| Total of All Chronic Disease Conditions | 704 | 1,020 | 1,725 |

## EXHIBIT 2.3
## Estimates of Incidence of Visual Disorders: Injuries[4,5]

| Diagnosis Group | Incidence in Thousands of Cases Per Year[6] | | |
|---|---|---|---|
| | Males | Females | Total |
| Open Wound of the Eye | 173 | 25 | 198 |
| Abrasion of the Cornea and Eye | 279 | 167 | 446 |
| Foreign Body in the Eye and Adnexa | 897 | 116 | 1,014 |
| Other Injury to the Eye and Optic Nerve | 237 | 94 | 331 |
| Total of All Injury Categories | 1,584 | 404 | 1,988 |

## EXHIBIT 2.4
## Estimates of Prevalence of Impairment from Visual Disorders: Impaired Vision

| Type of Eye Affection | Impaired Vision[7,8,9] (Numbered in thousands) | | |
|---|---|---|---|
| | Males | Females | Total |
| Glaucoma | 453 | 617 | 1,070 |
| Cataract (Prenatal) | 21 | 19 | 41 |
| Cataract (Other) | 681 | 989 | 1,670 |
| Retinal Disorder (Prenatal) | 37 | 39 | 76 |

### EXHIBIT 2.4
### Estimates of Prevalence of Impairment from Visual Disorders: Impaired Vision

Continued

| Type of Eye Affection | Impaired Vision | | |
|---|---|---|---|
| | Males | Females | Total |
| Retinal Disorder (Diabetic) | 48 | 90 | 138 |
| Retinal Disorder (Other) | 255 | 344 | 601 |
| Retrolental Fibroplasia | 8 | 11 | 19 |
| Myopia | 375 | 340 | 715 |
| Cornea or Schlera | 179 | 115 | 294 |
| Uveitis | 148 | 137 | 285 |
| Optic Nerve Disease | 62 | 59 | 121 |
| Multiple Affections | 24 | 66 | 90 |
| Refractive Errors with Lesser Disability | 880 | 782 | 1,662 |
| Other Affections | 2,057 | 1,599 | 3,656 |
| Unknown | 86 | 135 | 221 |
| Total (All Affections) | 5,315 | 5,344 | 10,659 |

### EXHIBIT 2.5
### Estimates of Prevalence of Impairment from Visual Disorders: Severe Visual Impairment

| Type of Eye Affection | Impaired Vision[10,11,12] (Numbered in Thousands) | | |
|---|---|---|---|
| | Males | Females | Total |
| Glaucoma | 79 | 128 | 207 |
| Cataract (Prenatal) | 16 | 17 | 34 |
| Cataract (Other) | 56 | 127 | 183 |
| Retinal Disorder (Prenatal) | 34 | 38 | 72 |
| Retinal Disorder (Diabetic) | 18 | 52 | 70 |
| Retinal Disorder (Other) | 82 | 167 | 250 |
| Retrolental Fibroplasia | 8 | 11 | 19 |
| Myopia | 15 | 21 | 36 |
| Cornea or Schlera | 25 | 42 | 67 |
| Uveitis | 27 | 40 | 67 |
| Optic Nerve Disease | 55 | 52 | 107 |
| Multiple Affections | 24 | 66 | 90 |

### EXHIBIT 2.5
### Estimates of Prevalence of Impairment from Vision Disorders: Severe Visual Impairment

Continued

| Type of Eye Affection | Impaired Vision | | |
|---|---|---|---|
| | Males | Females | Total |
| Refractive Errors with Lesser Disability | 0 | 0 | 0 |
| Other Affections | 51 | 52 | 103 |
| Unknown | 66 | 113 | 179 |
| Total (All Affections) | 557 | 926 | 1,483 |

### EXHIBIT 2.6
### Estimates of Prevalence of Impairment from Visual Disorders: Legal Blindness

| Type of Eye Affection | Legal Blindness[13,14,15] (Numbers in Thousands) | | |
|---|---|---|---|
| | Males | Females | Total |
| Glaucoma | 26 | 30 | 56 |
| Cataract (Prenatal) | 9 | 7 | 16 |
| Cataract (Other) | 19 | 29 | 48 |
| Retrolental Fibroplasia | 5 | 5 | 10 |
| Myopia | 7 | 7 | 14 |
| Cornea or Schlera | 10 | 12 | 22 |
| Uveitis | 11 | 12 | 23 |
| Optic Nerve Disease | 24 | 17 | 41 |
| Multiple Affections | 8 | 15 | 23 |
| Refractive Errors with Lesser Disability | 0 | 0 | 0 |
| Other Affections | 26 | 19 | 45 |
| Unknown | 25 | 28 | 53 |
| Total (All Affections) | 224 | 244 | 468 |

Tables are from The Interim Report of the National Advisory Eye Council, 1976. U.S. Dept. H.E.W., Public Health Service, NIH.

## FOOTNOTES

[1] United States, 1972. Basic source materials include first office visit statistics from National Disease and Therapeutic Index, which are used for approximation of the incidence of chronic conditions.

[2] Chronic condition incidence is based on number of newly diagnosed cases.

[3] Totals may not agree with sums of subcategories due to rounding of estimates. All estimates of less than 10,000 are subject to high chance of error due to small sample sizes and method of estimation.

[4] United States, 1972. Basic source materials include statistics from the Health Interview Survey (HIS), used to define the totals by sex for injuries, and first office visit statistics from the National Disease and Therapeutic Index, which are used for diagnostic distribution of injuries.

[5] All injuries involve medical care or one or more days of restricted activity. Totals agree with HIS average for 1970-73.

[6] Totals may not agree with sums of subcategories due to rounding of estimates. All estimates of less than 10,000 are subject to high chance of error due to small sample sizes and method of estimation.

[7] United States, 1972. Prevalence figures by sex from the Health Interview Survey (HIS) and the 1973-74 Nursing Home Survey are subdivided into more detailed affection categories using all office visit statistics from the National Disease and Therapeutic Index (for lesser impairments) and Model Reporting Area data (for the more serious impairments).

[8] Impaired vision is defined as any response during the interview indicating blindness in one or both eyes, cataract glaucoma, color blindness, detached retina, or other conditions of the retina, or any other trouble seeing with one or both eyes even when wearing glasses.

[9] Columns and rows may not add correctly due to rounding. Estimates are for the total population. All estimates less than 25,000 are subject to large relative errors of sampling. Note that the cases in Exhibits 2.5 and 2.6, Severe Visual Impairment and Legal Blindness, are included in the prevalence figures of the above exhibit.

[10] United States, 1972. Prevalence figures by sex from the Health Interview Survey (HIS) and the 1973-74 Nursing Home Surveys are subdivided into more detailed eye affection categories using statistics from the Model Reporting Area.

[11] Severe Visual Impairment is defined as any response during interview from those with impaired vision indicating an inability to read ordinary newsprint with glasses using both eyes (six years of age or older) or indicating the person had no useful vision in either eye or was blind in both eyes (any age).

[12] Columns and rows may not add correctly due to rounding. Estimates are for the total civilian population. All estimates less than 25,000 are subject to large relative errors of sampling. Note that the cases in Exhibit 2.6, Legal Blindness, are included in the prevalence figures of the above exhibit.

[13] United States, 1972. Prevalence is based on figures published by the National Society for the Prevention of Blindness subdivided by sex and type of eye affection using statistics from the Model Reporting area for Blindness Statistics.

[14] Legal Blindness is defined as visual acuity for distant vision of 20/200 or less in the better eye, with best correction, or widest diameter of visual field subtending an angle less than 20 degrees.

[15] Columns and rows may not add correctly due to rounding. Estimates are for the total civilian population. All estimates less than 25,000 are subject to large relative errors of sampling.

# THE EYE REPORT POINTS THE WAY

by

Amie L. Dennison

(Mrs. D.A. Dennison)

The purpose of this section is to aid the special teacher in making the most efficient use of the information found in an eye report. First the teacher needs to recognize the report for what it is — a communication from a professional to a professional. It contains confidential information. It is the record of what could be determined at the time of the eye examination, either from medical examination or from history taking. It is at least one underlying reason for special services being needed for one individual student. It is a listing of part of the essential materials with which a student has to build a life.

Secondly, a teacher needs to recognize the eye report for what it is not. Its limitations must be known. The report is only as good as the interest and knowledge of each of the professionals who handles it. It is not a news/gossip column. It cannot be assumed to be a sealed foreordaining prophesy in today's world of science. It is not a clue to services needed by *all* students. It is not the architectural design for an individual's entire life.

The above mean that the special teacher is going to use the Eye Report to do the most efficient planning with and for each visually handicapped student for whom there is some responsibility whether *total* (as in a self-contained service area) or *minimal* (as in a teacher/consultant service). It is hoped that this section can be of some help. However each special teacher will want to continue collecting source material. It is suggested that additional source material be sought regularly so that interest and information can be kept current.

Eye reports vary from a scribbled Rx pad slip to multi-paged, single-spaced, highly technical forms. However, a few (5) basic things seem to be required in planning educational placement and a program of service. The visual acuity (with and without glasses), the Rx being worn, etiology, diagnosis, prognosis will give the special teacher basics with which to work. Near visual acuity and a field chart are very helpful additions. From the very technical forms used in some areas, many other items can be learned if the eye specialist does in fact have and takes the time for them. A charted field is seldom included unless it has special significance, as in glaucoma in adults.

However, knowledgeable interpretation of the five basics given above can support the plans for serving the special needs of a visually handicapped student. Let us analyze these as the special teacher might do when studying the Eye Report. (Each item is interpreted in light of one or more of the individual student's vital statistics; i.e., age, sex, parents, siblings.)

**Visual Acuity** — Given usually in Snellen notation, 20/20 is considered 100% or "perfect" vision and means that the individual being checked sees at 20 feet what (according to norms) should be seen at 20 feet. 20/200 means that the individual sees at 20 feet what others are able to see at 200 feet. Such vision (or less) when in the better eye after the best correction is considered Legal Blindness, not to be misinterpreted to mean educational blindness or social blindness. Among other things, Legal Blindness means that a student is eligible for "quota" funds. Quota eligibility immediately has significance for the special teacher. It means that educational materials distributed by the American Printing House for the Blind can be purchased through the quota funds.

Perhaps the visual acuity is in the very low range; i.e., 8/400. The special teacher probably begins to have concerns regarding educational planning. Shall the student function with print or will another medium for learning be required?

Frequently, the difference made by the corrective lens prescribed by the eye specialist is a clue, though not always. If no corrective lens is given it does suggest that the central vision cannot be improved. However some individuals manage to function rather effectively with extreme low acuity while others seem not capable of functioning even though possessing much better acuity. In such cases, the special teacher must make a decision as to what medium or combination of media will serve the student best.

The amount of correction achieved is significant to the special teacher. Particularly when studied in conjunction with the strength of the prescribed lens, the correction achieved can have significance in working with the handicapped individual student. For example, if vision of H.M. can be corrected to 20/200 with a minus ten diopter lens it is reasonable to expect the individual to wear the prescription with little resistance. If, however, vision of 20/400 can be corrected only to 16/300 with a plus eleven diopters the possibilities of belligerent resistance are great.

**Rx Being Worn —** This item of information is frequently the one least appreciated by the special teacher. Yet, if its basic principles are understood it is not difficult to interpret and it can serve in several capacities:

a. It may supply additional information; i.e., if the eye specialist gives an incomplete diagnosis, the Rx will complete the refractive diagnosis. (Myopia might be the diagnosis and the Rx indicate the condition is compound myopia or a prism symbol will indicate a latent muscle imbalance which may not be mentioned.)

b. It serves as a check and balance against other items, i.e., if the prognosis is given as "stable," comparison of the Rx with that of other years will be a reinforcement or a refutation; if the prognosis is given as "grave," comparison of the Rx's of several dates will indicate how "grave" the progress currently is.

c. Third, the prescription considered with other items can aid the special teacher in better understanding problems related to wearing the prescribed glasses, restricted fields of vision, and distance required for critical visual tasks.

### Prescriptions Which May Be Found on the Eye Report

The outline given below is an oversimplification of the combinations possible and are given only as a review (or introduction) for the special teacher who wishes to be alert to the refractive errors which can be recognized from the written prescription:

**Samples of Possible Rx's:**

| | |
|---|---|
| **Myopia** | -12.25 D. (Indicates rather high nearsightedness.) |
| **Compound Myopia** | -12.00○-.75 cyl. x 90° (The added cylindrical on a meridian indicates astigmatism with the rule.) |
| * **Hyperopia** | +6.00 D. (Farsightedness, strong enough to give symptoms of eye fatigue.) |
| **Compound Hyperopia** | +6.00 ○ +.75 x 15° (Added correction on a meridian is cylindrical and is for astigmatism with the rule.) |
| * **Post Cataract** | Usually requires a *high* plus lens (+9.00 or more) unless the cataractous lens was removed from a myopic eye. If the eye were corrected with a -15.00 D. before surgery for cataract, the refraction might become a -4.00 D.; if it had been -7.00 D., it might be changed to a +4.00 D. for the aphakic eye. |
| **Myopic Astigmatism** | -2.50 x 90° (Only a cylindrical correction, no spherical correction.) |
| **Hyperopic Astigmatism** | +1.75 cyl x 75° (Cylindrical correction only.) |
| **Mixed Astigmatism** | -2.50 +1.25 x 75° (Combination of spherical correction and cylindrical<br>+2.50 -1.25 x 75° correction against the rule.) |

The above are very basic. Specialists have many ways of indicating corrections. The prism for muscle imbalance is shown with a small △

**Diagnosis —** The description of what is being dealt with is essential. Few would question the need for this item. Yet, there is great disparity in the accounts given for it. Incompleteness seems to be the greatest problem. For example, the eye specialist (in this case, the oculist) may very well give only myopia as a diagnosis when in fact the eye condition that presents the greater problems during "school days" may well be night blindness which is part of the larger and more inclusive diagnosis of retinitis pigmentosa or primary pigmentary degeneration. The myopia may be of little consequence in the academic setting for which the special teacher will be planning. The night blindness, on the other hand, may be presenting insurmountable problems to the visually handicapped student without any teacher (or parent) knowing the condition exists. (Some additional conditions are discussed briefly in terms of the author's experience with visually handicapped students. The section appears under the heading, "Some of the More Frequently Encountered Eye Conditions.")

**Etiology —** The why (origin) of the eye condition gives some input for age of onset and inheritance. Frequently a few words, perhaps one word, in this item is the best clue a special teacher has in attempting to work with the visually handicapped student and the family of such an individual. "Inherited" carries its own flag! Generally, a feeling of guilt rides "piggy-back!" "Congenital" frequently has the same traumatic effect. If an accident was the cause, who caused the accident! If the eye condition is systemic disease related, is the systemic disease, "in the family!"

**Prognosis** — Expected progress or ultimate development of the eye condition. This is not the item on which a decision as to the medium of choice is made. No longer is the time and energy of a seeing student wasted in learning to "do by *not looking.*" Prognosis is, however, *one* consideration in planning current activities, in counseling for in-school choices, and for thinking through long-term career expectations and life styles. For example, assume that a student had a diagnosis of primary pigmentary degeneration and a record of retinal detachment in one eye along with "grave" as a prognosis. No time would be spent in learning braille or in learning to function tactually. However, activities of a strenuous nature might be guarded against and career planning might check the alternatives *if* a second retinal detachment occurred.

## Some of the More Frequently Encountered Eye Conditions

ALBINISM: - The albino is easily recognized because of the lack of pigment. Frequently there is nystagmus, in which case the teacher will understand that extremely close eye work, such as tracing, cannot be performed accurately. Generally there is considerably reduced visual acuity. Formerly, it was assumed that all albinos would require braille. Just the opposite is the first assumption today. The albino has photophobia, extreme sensitivity to light, which accounts for squinting and rather peculiar facial expressions. Tinted lenses may be prescribed to relieve the discomfort. Frequently a correction does not improve the albino's visual acuity, but the comfort of the tinted lenses plus the improvement in facial expression, certainly may justify the wearing of glasses. For some unexplained reason the albino seems to run to extremes in personality. Fortunately, s(he) is most frequently a neat orderly and immaculate individual.

ANOPHTHALMOS: - The absence of a true eyeball or a very rudimentary mass may entail some of the problems associated with wearing a prosthesis. Teachers and/or attending adults become involved in this care and routine. Frequently cleansing and placing the prosthesis, and care of the orbit are part of the training required during the school day. Educationally, the individual is not capable of functioning with any form of visual media unless by some rare circumstance, one eye were developed. In that event, the functioning would be as one with monocular vision.

ANIRIDIA: - The absence of a true iris which may occur with other congenital abnormalities such as cataract and/or dislocated lens. Glaucoma frequently develops before school years are ended. Normal reactions (adaptations and responses) are impossible. Visual functioning may vary from day to day. (See also: Dislocated Lens, Cataract, and Glaucoma.)

APHAKIA:- The absence of the lens of the eye usually is due to surgery for cataract. In rare cases it is a part of the abnormally small eye (microphthalmos). Convex (plus, +) lenses are worn to provide refractive power lost because of the absence of the lens. Plus lenses of high power (+7.00 D. and up) make the eyes look larger when worn in spectacles. Secondly, a great and immediate improvement in vision does not always occur, may never do so if the congenital cataract filled the pupillary area and was not removed early enough. The extremely heavy refractions are difficult to keep in adjustment and in place on the face. Lightweight lenses in spectacle frames are helping. The use of contact lenses for some of the needed power is promising. With these, the aphakic individual finds it easier to use much weaker "adds" for close work.

CATARACT (CONGENITAL): - Much of congenital cataract is hereditary but many are a part of rubella's ravages. Generally bilateral, they may occur in only one eye. Congenital cataract is of two types, according to its location in relation to the pupil. A nuclear or central cataract is in the center of the pupil. In a bright light the pupil is contracted; thus, light rays cannot penetrate. In less light the pupil becomes larger, leaving around the cataract a space through which light rays may penetrate. Therefore a student with central or nuclear cataract does not want to sit in the place of brightest illumination. But a cataract in the rim or periphery of the pupil is another story. A contracted pupil closes out the cataract and takes away the attendant blurring. When there is a bright light, its rays reflect against the cataractous opacities and cast too much uncomfortable glare on the retina. Often a student with this type of cataract shades the eyes to see best. Those having congenital cataract are usually nervous, often showing a dislike for doctors, anesthesias and hospitals. This may be traced to the early surgical procedures performed when they were very young. Often the student is sensitive about the thick glasses and much concerned over the fact that the glasses make the eyes look very large. Since congenital cataract is an inherited difficulty, this attitude may be a reflection of the family's attitude toward glasses.

CATARACT (ADVENTITIOUS): - Cataracts which are acquired in an outside, accidental circumstance generally would not make a previously normally seeing individual become an individual who needed to be educated as a visually handicapped person. A penetrating wound probably would involve only one eye. In that event the resultant vision would be considered normal. However, a period of adjustment to monocular vision might require work with the special teacher. Radiation, on the other hand, might result in aphakia with the need for the strong convex (plus, +) lenses. There would not be the additional problem of poorly developed central vision as is true after the removal of lenses which had been fully cataractous from birth; but, a temporary adjustment period plus guidance would be needed probably.

COLOBOMA: - A cleft or hole in some portion of the eye may or may not cause serious impairment to visual functioning. If the coloboma is at 6 o'clock and in the iris only, it may be little noticed. However, if the cleft extends back through the entire eye (even into the brain) there may be a serious loss of functioning, visually and mentally.

CORNEAL OPACITIES: - No matter what the cause, corneal opacities are difficult to deal with in total functioning. Even though a great loss may not be indicated when visual acuity is checked, the opacities frequently interfere with efficient activity. For example, an individual might read regular-size print, jump rope, play basketball — *but* walk into a hanging tree limb and do further damage to the cornea. Learning to cautiously observe and guard against hazards which present a thin silhouette is especially needed.

GLAUCOMA: - Infantile or Congenital glaucoma is caused by abnormal development of the eye during the period before birth and control of the intraocular pressure must be begun soon after birth. Surgery and/or treatment may save considerable vision. However, the eye may be damaged by much enlargement and destruction of tissue (buphthalmos). Sufficient central vision may be retained for academic needs. Frequently, the corrective lenses worn (or the conditions of the eye itself) result in sensitivity to light. Almost certainly there will be loss of side (peripheral) vision. This means that caution to prevent accidents is a necessity. Some feel that atmospheric conditions and weather changes make a difference in visual efficiency. Other conditions such as aniridia and dislocated lenses are frequently associated with congenital glaucoma.

MICROPHTHALMOS: - One or both eyes are markedly smaller than normal. Frequently other ocular abnormalities are present (e.g., cataract, glaucoma, aniridia, coloboma). Vision is very low. Glasses may not be prescribed because of the poor correction gained. Use of vision must be encouraged and motivated continuously, because it is neither satisfying nor easy to struggle with visual tasks needed to improve visual efficiency.

NYSTAGMUS: - The involuntary movement of the eyes is associated with many other eye conditions and is almost without exception an indication that there is poor visual acuity. The searching movement increases when the visual task becomes more acute and tends to become more quiet when no visual task is being attempted. Improved correction, when possible, quiets the movement usually. The teacher knows that nystagmus precludes sustained, clear, accurate vision. However, for nystagmus alone adjustment of curriculum, procedures and schedule are not considered. Conditions with which the nystagmus is associated may dictate otherwise.

OPTIC NERVE and PATHWAY DISORDERS: - Atrophy, infectious disease, injury, growths, degeneration, genetic, prenatal — whatever the cause, two factors influence how the visually handicapped student and the special teacher will work together. The *site* or where interference occurs as a result of the disorder is the single most important factor as regards functioning. Grossly divided into areas:

1) A lesion in one side of the retina would cause a loss in only one side of one eye;
2) A growth between the eye and the optic chiasm would affect total vision of that eye only;
3) A lesion at the chiasm would cause the outer half of each eye's field to be blocked; and,
4) Trouble behind the chiasm would affect vision in both eyes in a specific pattern according to the location (site) of the trouble.

Each visual task needs to be analyzed in relation to the known area of visual loss. For example, if there is a loss of the right half of the visual field, reading is much more affected than if the left half were the area of loss. Normally, in reading print, the eye moves ahead toward the right from the left, but this visual movement is impeded when there is a "right homonymous hemianopsia" due to a lesion on the left occipital lobe.

The matter of central vs. field (peripheral) vision is very evident in optic nerve disorders. If central vision is lost, academics present a problem; if peripheral vision is lost, physical activities (even the simple act of getting from "here" to "there") are curtailed and/or hazardous. With either loss, social problems are almost insurmountable. Frequently, glasses are no help and the eyes give no evidence of injury or insult. Therefore, a normal performance (in all areas) is expected of the individual who does not have the vision to perform. An object dropped or misplaced is total disaster unless orderly management and skill in listening have been carefully learned. Unawareness of others, clumsy movements, volunteering and then not being able to perform, "getting lost in a telephone booth" — all attach to those who have no side vision. The special teacher can give guidance to the visually handicapped student in such areas so that s(he) learns; (1) to recognize limitations (not driving a car because it would be hazardous to others); 2) to make the best use of all clues (sounds, landmarks); 3) to organize, plan, and remember for increasing efficiency; and, 4) to assume the responsibility for helping others gain a realistic understanding of the visual problem, not waiting for a teacher, fellow-student, or others to guess at what makes "that crazy kid act like that."

The second factor which relates to the student/teacher work is the matter of whether the condition is stable or progressive. (See the section above on PROGNOSIS.)

### The Three R's

The three R's that come to mind in the area of visual disorders are Retinoblastoma, Retrolental Fibroplasia, and Rubella. Each very different in every respect except two or perhaps three: 1) they have caused terrible damage; 2) they have defied the medical world and confused the educational world; and 3) they are being understood and controlled, we hope. In all three, the special teacher needs to keep up on what is happening.

RETINOBLASTOMA: - Formerly called glioma of the retina, this condition frequently results in enucleation of one or both globes. New treatments are offering some hopeful developments. Genetic factors and guidance are the problems to be met and dealt with.

RETROLENTAL FIBROPLASIA (RLF): - Misnamed because of lack of understanding of what was happening. From the first description to the discovery of the cause took little more than a decade but accounted for a dramatic increase in the numbers of the blind enrolled in schools. Numbers have now subsided and stabilized at a minimum.

RUBELLA: - Multihandicapped children from mothers who were victims of the recurring epidemics of German measles. Many victims are being evaluated. Many teachers are attempting to find ways to use those evaluations to plan a useful future. Much is being written.

### The Refractive Errors

The refractive errors are the most simple to understand when they are simple refractive errors. Descriptions of some characteristic patterns follow. However, the special teacher cannot overlook the fact that refractive errors are only a part of a whole complex problem or syndrome in a high percentage of cases seen in special programs. As was mentioned previously, myopia is not just myopia when it is a part of Primary Pigmentary Degeneration, involving night blindness, restricted field, and genetic factors which must be considered as the visually handicapped student matures. Each phase of the complex problem must be dealt with.

ASTIGMATISM: - This refractive error creates additional problems when added to either myopia or hyperopia. Having glasses well adjusted is especially important. If a correction is for the 90° meridian, it should not be worn at some other meridian! Good quality lighting and an additional quantity of it is usually appreciated by the student who is struggling to make the irregularities of astigmatism come into focus.

MYOPIA: - The myopic or nearsighted student usually wears glasses without much urging. S(he) realizes that they make the eyes look smaller, but s(he) sees so much more with the correction than without it that s(he) chooses to wear the glasses and see. School work is no problem to the myope. There is no particular strain, since s(he) is able to work for extended periods at close range. S(he) may have a tendency to study or read to the exclusion of outdoor interests and activities. If so, s(he) needs to be encouraged to establish interests or hobbies that will involve the outdoors. The nearsighted student is apt to stoop and acquire a very poor posture. This can be obviated by consistent use of book rests or adjustable desk-tops. S(he) should learn to do the adjusting automatically.

The teacher should not take responsibility for allowing myopes to participate in physical exercise which involves heavy lifting, possibility of severe body blows, or head injuries, since the danger of retinal detachment is great. Only when the oculist definitely gives permission should the high myope be allowed to participate in such activities. Walking and swimming (without diving) may be undertaken safely.

HYPEROPIA: - The hyperopic or farsighted student is the one most apt to be overlooked. Even when the eye condition is recognized, this handicap is often misunderstood. Several misconceptions arise from trying to compare the myopic with the hyperopic eye. Since a myope often sees clearly at close range, it is expected that a hyperope will see clearly at distance. This is not a true picture. The farsighted student does not necessarily see well at a distance. If s(he) does, it is at the expense of excessive accommodation. The normal eye is at rest when seeing an object at a distance of 20 feet or more. Not so with the hyperopic eye; it must accommodate continuously. This results in fatigue and restlessness. Thus the hyperopic student may not be studious and may have a short attention span. Realizing this the teacher will obtain best results if only short periods of close eye work are assigned with frequent intervals of rest.

## Aids to Visual Functioning

Once the eye report of the visually handicapped student has been reviewed, the special teacher needs to think in terms of *functioning* vision. Functionally vision is either central or peripheral.

**Central Vision** (or macula vision) provides color discrimination and allows critical or sharp (exact) seeing tasks. Reading, whether at close or at a distance is a central vision task. This is the vision which is attended when corrective lenses are prescribed. When the macula is not developed sufficiently (as in total cataract) or is deteriorated (as in macula degeneration) corrective lenses are of no value. Seldom can acuity be better than 20/200 if macula or central vision is lost. With this problem a student may wear no glasses, appear to see normally and not be able to do any critical visual task.

**Peripheral vision** which provides awareness of movement and serves in dim light is vital for mobility. Without peripheral vision, the student is literally "lost in a telephone booth." More important is the fact that with only the tubular vision left and the periphery lost many social skills are major handicapping hazards.

Seldom does the special teacher work with a totally blind student. It is important that the teacher observe carefully in all situations to determine if the visually handicapped student is efficient in the use of all visual potentials. Even if more than one medium is used, there is every reason to exercise and utilize as efficiently as possible all visual capability, for whatever task possible. If regular size print is not used, then large print or a magnifier or both should be used. If a magnifier is of no value at close range, perhaps a telescope has merit for distance. If one type low vision aid does not work for a given need, another may. The supply of aids continues to expand and no individual can afford to miss an opportunity.

Occasionally, the special teacher is not familiar with "cross-referencing" in determining information on a given magnifier. Suggestions, concepts, and tables are included to assist. Encouraging each visually handicapped student to assume the responsibility for finding what is useful in any given situation is an important part of the special teacher's role. The following guide should be of general assistance in enabling the specialist to operate more effectively in this regard.

## Guide to Selecting Optical Aids

| | Lighthouse Guide | | IMRC/APH Extension | |
|---|---|---|---|---|
| **Vision** | **NYL CODE** | **Diopters** | **Magnification** | **Focal Length** |
| 20/40-<br>20/60 | A | 3-6 D. | up to 1.5X | 12-6 inches |
| 20/70-<br>20/100 | B | 7-10 D. | 1.75X-2.50X | 6-4 inches |
| 20/100-<br>20/200 | C | 10-20 D. | 2.5X-4X | 4-2.5 inches |
| 20/200-<br>20/400 | D | 20-40 D. | 5X-8X | 2.5-1 inch |
| Below<br>20/400 | E | 40-80 D. | 10X-20X | 0.5 inch or less |

The New York Lighthouse gives a "Guide to Selecting Optical Aids" in its Catalog. Each symbol used in its Code relates the visual acuity range to the number of diopters needed to read *average* print. (Dr. Gerald Fonda defines *standard* type as 8 pt. to 12 pt.) Dr. Fonda and others feel there "is a strong argument for designating the power of a magnifying lens as the equivalent or true dioptric power." However, in our listing, we have extended the NYL Guide, adding power or magnification and the approximate focal length for devices. The chart above summarizes the information attempted.

### Counseling

The information found on the Eye Report is Private and Confidential. It is studied, used and protected by the special teacher as planning and working with the visually handicapped student progresses. There comes a time when that confidential information should become the possession of the student whose life it influences. Frequently, the special teacher is the one best qualified to counsel with the student regarding the eye condition which may be a major concern and influence in the life of the student. Care, honesty, and maintaining an open relationship and environment are the keys. When a student asks for information, generally the answer is known already or is suspected. Confirmation and frank discussion are really what is wanted. If a student asks why the eye doctor does not recommend corrective lenses, the chances are very good that the student already knows that glasses cannot correct vision that is not there. When an adolescent student mentions the fact that an older brother has a son who is already wearing glasses, too, it is very probable that the student is concerned about the inheritance factor associated with the eye condition which the special teacher first noted on the student's eye report!

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Office of the Project Director
Early Childhood Learning Center
for Visually Impaired Children

Rock Creek Palisades Elementary School
3901 Denfeld Avenue
Kensington, Maryland 20795

Telephone 942-6050

## EYE MEDICAL REPORT

______________________________ has been referred to this office for enrollment in the Early Childhood Program. Please complete this form as soon as possible.

Criteria for Referral: Any child whose vision is judged to be sufficiently impaired that it (with best correction) may interfere with his successful functioning in school or in his environment, should be referred for evaluation.

### Student Information

Birthdate ______________________________ Address ______________________________

Parents ______________________________ ______________________________

### Examination

Ocular History

Diagnosis

Acuity (if obtainable)

OD:

OS:

OU:

Method by which acuity obtained, (i.e., Lazy E, Snellen)

______________________________________________________________________

______________________________________________________________________

| | | | |
|---|---|---|---|
| Characteristics: | Permanent _____ | Recurrent _____ | Improving _____ |
| | Progressive _____ | Communicable _____ | Cannot be improved _____ |

Other ______________________________________________________________

443

Medication Prescribed ______________________________

Activities Prohibited ______________________________

Visual Performance (Please check where applicable)

No light perception _____ No measurable response to visual stimuli _____
Reflexive Action Present _____

Demonstrates ability to: Locate source of light _____ Fixate _____

Track horizontally _____ Vertically _____

Distinguish forms or objects _____

Muscle Function: Normal _____ Abnormal _____

Fusion: _____ Depth Perception _____

Please include any statement that will contribute to assessing the development and visual efficiency of this child:

Signature Date

## PREFERRED VISUAL ACUITY NOTATIONS

**DISTANT VISION.** Use Snellen notation with test distance of 20 feet. (Examples: 20/100, 20/60). For acuities less than 20/200 record distance at which 200 foot letter can be recognized as numerator of fraction and 200 as denominator. (Examples: 10/200, 3/200). If the 200 foot letter is not recognized at 1 foot record abbreviation for best distant vision as follows:

| | |
|---|---|
| HM | HAND MOVEMENTS |
| PLL | PERCEIVES AND LOCALIZES LIGHT IN ONE OR MORE QUADRANTS |
| LP | PERCEIVES BUT DOES NOT LOCALIZE LIGHT |
| No LP | NO LIGHT PERCEPTION |

**NEAR VISION.** Use standard A.M.A. notation and specify best distance at which pupil can read. (Example: 14/70 at 5 in.)

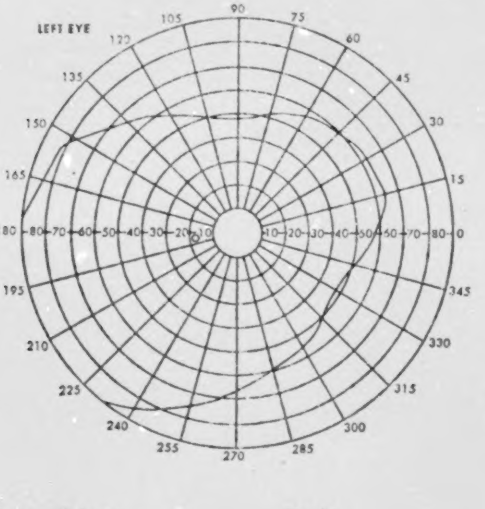
## TABLE OF APPROXIMATE EQUIVALENT VISUAL ACUITY NOTATIONS

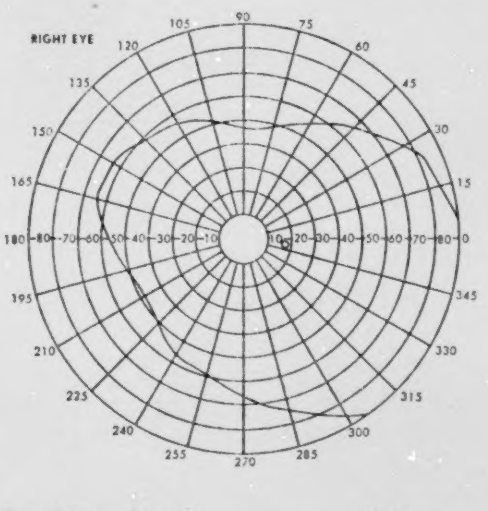
These notations serve only as an indication of the approximate relationship between recordings of distant and near vision and point type sizes. The teacher will find in practice that the pupil's reading performance may vary considerably from the equivalents shown.

| | Near | | | | | |
|---|---|---|---|---|---|---|
| *Distant Snellen* | *A.M.A.* | *Jaeger* | *Metric* | *% Central Visual Efficiency for Near* | *Point* | *Usual Type Text Size* |
| 20/20 (ft.) | 14/14 (in.) | 1 | 0.37 (M.) | 100 | 3 | Mail order catalogue |
| 20/30 | 14/21 | 2 | 0.50 | 95 | 5 | Want ads |
| 20/40 | 14/28 | 4 | 0.75 | 90 | 6 | Telephone directory |
| 20/50 | 14/35 | 6 | 0.87 | 50 | 8 | Newspaper text |
| 20/60 | 14/42 | 8 | 1.00 | 40 | 9 | Adult text books |
| 20/80 | 14/56 | 10 | 1.50 | 20 | 12 | Children's books 9-12 yrs |
| 20/100 | 14/70 | 11 | 1.75 | 15 | 14 | Children's books 8-9 yrs. |
| 20/120 | 14/84 | 12 | 2.00 | 10 | 18 | Large type text |
| 20/200 | 14/140 | 17 | 3.50 | 2 | 24 | |
| 12.5/200 | 14/224 | 19 | 6.00 | 1.5 | | |
| 8/200 | 14/336 | 20 | 8.00 | 1 | | |
| 5/200 | 14/560 | | | | | |
| 3/200 | 14/900 | | | | | |

**FIELD OF VISION.** Record results on chart below.

Type of test used: ____________________ Illumination in ft. candles: ____________



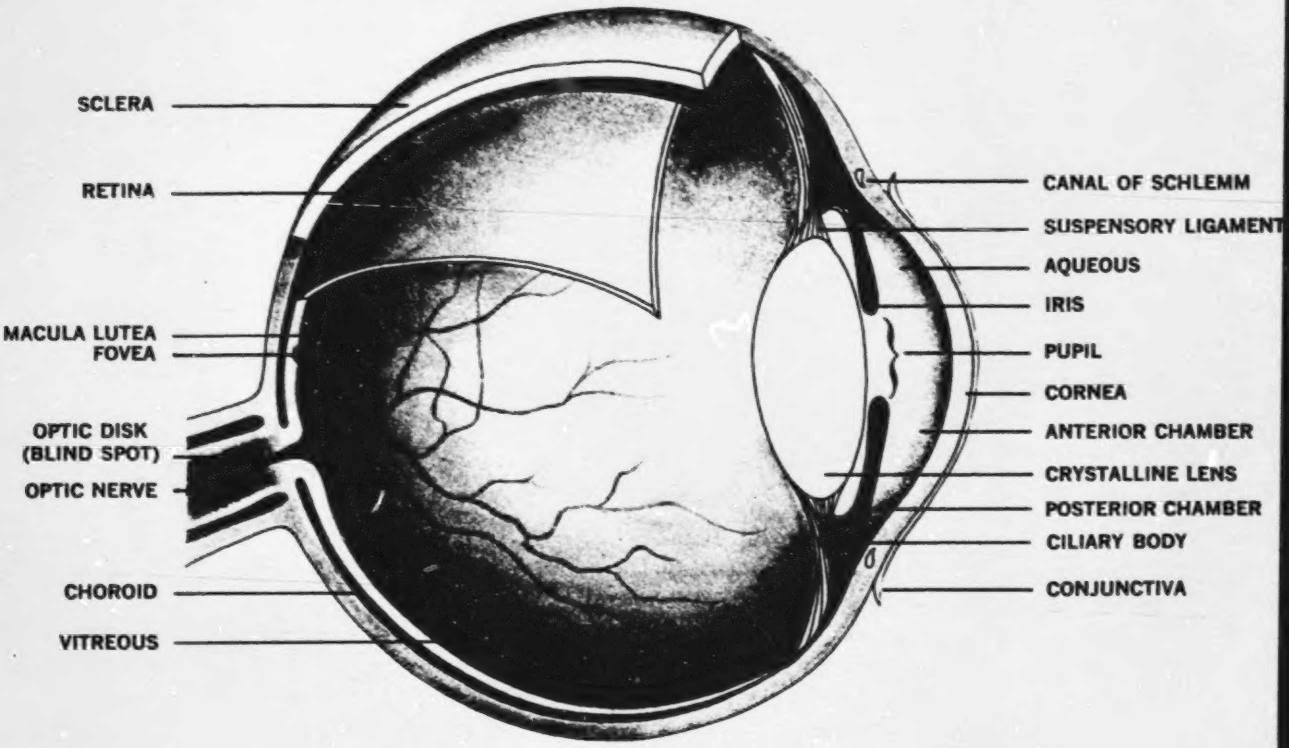


Test object: Color(s) __________ Size(s) __________ Test object: Color(s) __________ Size(s) __________

Distance(s): __________ Distance(s): __________

Stat 4 Rev/665/20M National Society for the Prevention of Blindness, 16 East 40th Street, New York, N.Y. 10016

The following is the drawing of a cross-section of an eye which will serve to review basic anatomy of the eye itself. This cross-section is reproduced from Publication V-7 from the National Society for the Prevention of Blindness.


SCLERA
RETINA
MACULA LUTEA
FOVEA
OPTIC DISK
(BLIND SPOT)
OPTIC NERVE
CHOROID
VITREOUS
CANAL OF SCHLEMM
SUSPENSORY LIGAMENT
AQUEOUS
IRIS
PUPIL
CORNEA
ANTERIOR CHAMBER
CRYSTALLINE LENS
POSTERIOR CHAMBER
CILIARY BODY
CONJUNCTIVA

## Vocabulary of Terms Relating to the Eye

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| **Accommodation** | The adjustment of the eye for seeing at different distances, accomplished by changing the shape of the Crystalline lens through action of the ciliary muscle, thus focusing a clear image on the retina. |
| **Albinism** | An hereditary loss of pigment in the iris, skin, and hair; usually associated with lowered visual acuity, nystagmus and photophobia and often accompanied by refractive errors. |
| **Amblyopia** | Dimness of vision without any apparent disease of the eye. |
| **Amblyopia Ex Anopsia** | Dimness of vision due to disuse of the eye. |
| **Ametropia** | A refractive error in which the eye when in a state of rest does not focus the image of an object upon the retina; includes hyperopia, myopia, and astigmatism. (See also: Refractive Error.) |
| **Aniridia** | Congenital absence of the iris. |
| **Aniseikonia** | A condition in which the ocular image of an object as seen by one eye differs in size or shape from that seen by the other eye. |
| **Anophthalmos** | Absence of a true eyeball. |
| **Anterior Chamber** | Space in the front of the eye, bounded in front by the cornea and behind by the iris; filled with aqueous. |
| **Aphakia** | Absence of the lens of the eye. |
| **Aqueous (Aqueous Humor)** | Clear, watery fluid which fills the anterior and posterior chambers within the front part of the eye. |
| **Asthenopia** | Eye fatigue caused by tiring of the internal or external muscles. |
| **Astigmatism** | Refractive error which prevents the light rays from coming to a single focus on the retina because of different degrees of refraction in the various meridians of the eye. |
| **Binocular Vision** | The ability to use the two eyes simultaneously to focus on the same object and to fuse the two images into a single image which gives a correct interpretation of its solidity and its position in space. |
| **Blepharitis** | Inflammation of the margin of the eyelids. |
| **Blindness** | In the United States, the legal definition of blindness is: central visual acuity of 20/200 or less in the better eye after correction; or visual acuity of more than 20/200 if there is a field defect in which the widest diameter of the visual field subtends an angle distance no greater than 20 degrees. |
| **Buphthalmos** | Large eyeball in infants — generally due to glaucoma. |
| **C, CC (Cum Correction)** | With correction; wearing prescribed lenses. |
| **Canal of Schlemm** | A circular canal situated at the juncture of the sclera and cornea through which the aqueous is excreted after it has circulated between the lens and the iris and between the iris and the cornea. |
| **Canthus** | The angle at either end of the slit between the eyelids; specified as outer, or temporal, and inner, or nasal. |
| **Cataract** | A condition in which the Cyrstalline lens of the eye, or its capsule, or both, become opaque. |
| **Central Visual Acuity** | Ability of the eye to perceive the shape of objects in the direct line of vision. |
| **Chalazion** | Inflammatory enlargement of a Meibomian gland in the eyelid. |
| **Chorioretinitis** | Inflammation of the choroid and retina. |
| **Choroid** | The vascular, intermediate coat which furnishes nourishment to the other parts of the eyeball. |
| **Ciliary Body** | Portion of the vascular coat between the iris and the choroid. It consists of ciliary processes and the ciliary muscle. (See also: Uveal Tract.) |
| **Coloboma** | Congenital cleft due to the failure of the eye to complete growth in the part affected. |
| **Color Deficiency** | Diminished ability to perceive differences in color — usually for red or green, rarely for blue or yellow. |
| **Concavo Lens** | Lens having the power to diverge rays of light; also known as diverging, reducing, negative, myopic, or minus lens, denoted by the sign - . |

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| **Cones and Rods** | Two kinds of cells which form a layer of the retina and act as light-receiving media. Cones are concerned with visual acuity and color discrimination; rods, with motion and vision at low degrees of illumination (night vision). |
| **Congenital** | Present at birth. |
| **Conjunctiva** | Mucous membrane which lines the eyelids and covers the front part of the eyeball. |
| **Convergence** | The process of directing the visual axes of the two eyes to a near point, with the result that the pupils of the two eyes are closer together. The eyes are turned inward. |
| **Convex Lens** | Lens having power to converge rays of light and to bring them to a focus; also known as converging, magnifying, hyperopic, or plus lens, denoted by sign +. |
| **Cornea** | Clear, transparent portion of the outer coat of eyeball forming front of aqueous chamber. |
| **Corneal Graft** | Operation to restore vision by replacing a section of opaque cornea with transparent cornea. |
| **Crystalline Lens** | A transparent, colorless body suspended in the front of the eyeball, between the aqueous and the vitreous, the function of which is to bring the rays of light to a focus on the retina. |
| **Cycloplegic** | A drug that temporarily puts the ciliary muscle at rest and dilates the pupil; often used to ascertain the error of refraction. |
| **Cylindrical Lens** | A segment of a cylinder, the refractive power of which varies in different meridians; used in the correction of astigmatism. |
| **Dacryocystitis** | Inflammation of lacrimal sac. |
| **Dark Adaptation** | The ability of the retina and pupil to adjust to a dim light. |
| **Depth Perception** | The ability to perceive the solidity of objects and their relative position in space. |
| **Diopter** | Unit of measurement of strength or refractive power of lenses. |
| **Diplopia** | The seeing of one object as two. |
| **Dyslexia** | Inability to read which is apparently due to a neurological problem. |
| **Emmetropia** | The refractive condition of the normal eye. When the eye is at rest, the image of distant objects is brought to a focus on the retina. |
| **Endophthalmitis** | Inflammation of most of the internal tissue of the eyeball. |
| **Entropion** | A turning inward of the eyelid. |
| **Enucleation** | Complete surgical removal of the eyeball. |
| **Esophoria** | A tendency of the eye to turn inward. |
| **Esotropia** | A manifest turning inward of the eye (convergent strabismus or crossed eye). |
| **Exophoria** | A tendency of the eye to turn outward. |
| **Exophthalmos** | Abnormal protrusion of the eyeball. |
| **Exotropia** | Abnormal turning outward from the nose of one or both eyes (divergent strabismus). |
| **Extrinsic Muscles** | External muscles of the eye which move the eyeball. Each eye has four rectus and two oblique muscles. |
| **Eye Dominance** | Tendency of one eye to assume the major function of seeing, being assisted by the less dominant eye. |
| **Eye Grounds** | See Fundus. |
| **Field of Vision** | The entire area which can be seen without shifting the gaze. |
| **Floaters** | Small particles consisting of cells or fibrin which move in the vitreous. |
| **Focus** | Point to which rays are converged after passing through a lens; focal distance is the distance rays travel after refraction before focus is reached. |
| **Fornix** | A loose fold of the conjunctiva where the part covering the eyeball meets the conjunctiva lining of the eyelid. |
| **Fovea** | Small depression in the retina at the back of the eye; the part of the macula adapted for most acute vision. |
| **Fundus** | The back of the eye which can be seen with an ophthalmoscope. |
| **Fusion** | The power of coordinating the images received by the two eyes into a single mental image. |
| **Glaucoma** | Increased pressure inside the eye; "hardening of the eyeball," caused by accumulation of aqueous fluid in the front portion. |
| **Glioma** | Malignant tumor of the retina. (See also: Retinoblastoma.) |
| **Hemianopsia** | Blindness of one-half the field of vision of one or both eyes. |

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| **Heterophoria** | A constant tendency of the eyes to deviate from the normal position for binocular fixation, counterbalanced by simultaneous fixation forced by muscular effort (prompted by the desire for single binocular vision). Deviation is not usually apparent, in which case it is said to be latent. |
| **Heterotropia** | An obvious or manifest deviation of the visual axis of an eye out of alignment with the other eye. (See also: Strabismus.) |
| **Hyperopia, Hypermetropia** | A refractive error in which, because the eyeball is short or the refractive power of the lens weak, the point of focus for rays of light from distant objects (parallel light rays) is behind the retina; thus, accommodation to increase the refractive power of the lens is necessary for distant as well as near vision. |
| **Hyperphoria** | A tendency of one eye to deviate upward. |
| **Hypertropia** | A deviation upward of one of the visual axes. |
| **Injection** | A term sometimes used to mean congestion of ciliary or conjunctival blood vessels, redness of the eye. |
| **Interstitial Keratitis** | Affection of the middle layer of the cornea; disease, found chiefly in children and young adults, is usually caused by transmission of syphilis from mother to unborn child. |
| **Iridocyclitis** | Inflammation of the iris and ciliary body. |
| **Iris** | Colored, circular membrane, suspended behind the cornea and immediately in front of the lens. The iris regulates the amount of light entering the eye by changing the size of the pupil. |
| **Iritis** | Inflammation of the iris; the condition is marked by pain, inflammation, discomfort from light, contraction of pupil, discoloration of iris. It may be caused by injury, syphilis, rheumatism, gonorrhea, tuberculosis, etc. |
| **Isihara Color Plates** | A test for defects in recognizing colors, based on the ability to trace patterns in a series of multicolored charts. |
| **Jaeger Test** | A test for near vision; lines of reading matter printed in a series of various sizes of type. |
| **Keratoconus** | Cone-shaped deformity of the cornea. |
| **Keratoplasty** | See Corneal Graft. |
| **Lacrimal Gland** | A gland which secretes tears; it lies in the outer angle of the orbit. |
| **Lacrimal Sac** | The dilated upper end of the lacrimal duct. |
| **Lagophthalmos** | A condition in which the lids cannot be completely closed. |
| **Lens** | A refractive medium having one or both surfaces curved. |
| **Light Perception (L.P.)** | Ability to distinguish light from dark. |
| **Limbus** | Boundary between cornea and sclera. |
| **Macrophthalmos** | Abnormally large eyball, resulting chiefly from infantile glaucoma. |
| **Macula Lutea ("Yellow Spot")** | The small avascular area of the retina that surrounds the fovea and with the fovea comprises the area of distinct vision. |
| **Megalophthalmos** | Abnormally large eyeball present at birth (congenital). |
| **Microphthalmos** | Abnormally small eyeball present at birth (congenital). |
| **Miotic** | A drug that causes the pupil to contract. |
| **Mydriatic** | A drug that dilates the pupil. |
| **Myopia (Nearsightedness)** | A refractive error in which, because the eyeball is too long in relation to its focusing power, the point of focus for rays of light from distant objects (parallel light rays) is in front of the retina. Thus, to obtain distinct vision, the object must be brought nearer to take advantage of divergent light rays (those from objects less than 20 feet away). |
| **Near Point of Convergence** | The nearest single point at which the two eyes can direct their visual lines, normally about three inches from the eyes in young people. |
| **Nystagmus** | An involuntary, rapid movement of the eyeball; it may be lateral, vertical, rotary, or mixed. |

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| **Oculist or Ophthalmologist** | A physician who is licensed to practice medicine and surgery and who specializes in diagnosis and treatment of defects and diseases of the eye. An M.D. is used after the name. |
| **Oculus Dexter (O.D.)** | Right eye. |
| **Oculus Sinister (O.S.)** | Left eye. |
| **Oculus Uterque (O.U.)** | Both eyes. |
| **Ophthalmia** | Inflammation of the eye or of the conjunctiva. |
| **Ophthalmia Neonatorum** | An acute, purulent conjunctivitis in the newborn. For control purposes, it is sometimes legally defined as "an inflamed or discharging eye in a newborn baby under two weeks." |
| **Ophthalmologist or Oculist** | See Oculist. |
| **Opthalmoscope** | An instrument used in examining the interior of the eye. |
| **Optic Atrophy** | Degeneration of the nerve tissue which carries messages from the retina to the brain. |
| **Optic Chiasm** | The crossing of the fibers of the optic nerves on the lower surface of the brain. |
| **Optic Disk** | Head of the optic nerve in the eyeball. |
| **Optician** | One who grinds lenses, fits them into frames, and adjusts the frames to the wearer. |
| **Optic Nerve** | The special nerve of the sense of sight which carries messages from the retina to the brain. |
| **Optic Neuritis** | Inflammation of the optic nerve. |
| **Optometrist** | A licensed, nonmedical practitioner who measures refractive errors and eye muscle disturbance. In treatment the optometrist uses glasses, prisms, and exercises only. The letters O.D. follow the name. |
| **Orthoptic Training** | Series of scientifically planned exercises for developing or restoring the normal teamwork of the eyes. |
| **Orthoptist** | One who provides orthoptic training. |
| **Palpebral** | Pertaining to the eyelid. |
| **Peripheral Vision** | Ability to perceive the presence, motion, or color of objects outside of the direct line of vision. |
| **Phlyctenular Keratitis** | A variety of keratitis characterized by the formation of pustules or papules on the cornea; usually occurs in young children and may be caused by poor nutrition. Many physicians believe it to be a tubercular condition. |
| **Photophobia** | Abnormal sensitivity to and discomfort from light. |
| **Presbyopia** | A gradual lessening of the power of accommodation due to a physiological change which becomes noticeable after the age of forty. |
| **Primary Pigmentary Degeneration** | (See Retinitis Pigmentosa) |
| **Prosthesis** | An artifical substitute for a missing eye (or other missing part of the body). |
| **Pseudoisochromatic Charts** | Charts with colored dots of various hues and shades indicating numbers, letters, or patterns, used for testing color discrimination. |
| **Pterygium** | A triangular fold of growing membrane which may extend toward the cornea on the white of the eye. It occurs most frequently in persons exposed to dust or wind. |
| **Ptosis** | A paralytic drooping of the upper eyelid. |
| **Refraction** | 1. Deviation in the course of the rays of light in passing from one transparent medium into another of different density. 2. Determination of refractive errors of the eye and correction by glasses. |
| **Refractive Error** | A defect in the eye that prevents light rays from being brought to a single focus exactly on the retina. |
| **Refractive Media** | The transparent parts of the eye having refractive power: cornea, aqueous, lens, and vitreous. |
| **Retina** | Innermost coat of the eye, formed of sensitive nerve fibers and connected with the optic nerve. |

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| **Retinal Detachment** | A separation of the retina from the choroid. |
| **Retinitis** | Inflammation of the retina. |
| **Retinitis Pigmentosa** | (Primary Pigmentary Degeneration) Hereditary degeneration and atrophy of the retina. There is usually misplaced pigment. |
| **Retinoblastoma** | The most common malignant intraocular tumor of childhood occurs usually under age 5. It is probably always congenital. (Formerly known as glioma.) |
| **Retinoscope** | An instrument for determining the refractive state of the eye by observing the movements of lights and shadows across the pupil by the light thrown onto the retina from a moving mirror. |
| **Retinopathy** | A disease of the retina, due to various causes. (Example: diabetic retinopathy.) |
| **Retrolental Fibroplasia (RLF)** | A disease of the retina in which a mass of scar tissue forms in back of the lens of the eye. Both eyes are affected in most cases, and it occurs chiefly in infants born prematurely who receive excessive oxygen. |
| **Rods and Cones** | See Cones and Rods. |
| **S,SC (Sine Correction)** | Without correction; that is, not wearing glasses. |
| **Safety Glasses** | Impact resistant; available with or without visual correction for workshop or street wear protectection, for both adults and children. |
| **Sclera** | The white part of the eye — a tough covering which, with the cornea, forms the external, protective coat of the eye. |
| **Scleritis** | Inflammation of the sclera. |
| **Scotoma** | A blind or partially blind area in the visual field. |
| **Snellen Chart** | Used for testing central visual acuity. It consists of lines of letters, numbers or symbols in graded sizes drawn to Snellen measurements. Each size is labeled with the distance at which it can be read by the normal eye. Most often used for testing vision at a distance of 20 ft. |
| **Spherical Lens** | Segment of a sphere refracting rays of light equally in all meridians. |
| **Stereoscopic Vision** | Ability to perceive relative position of objects in space without such cues as shadow, size, and overlapping. |
| **Strabismus (Squint, Cross-Eye, Esotropia, etc.)** | Failure of the two eyes simultaneously to direct their gaze at the same object because of muscle imbalance. |
| **Strephosymbolia** | A disorder of perception in which objects seem reversed as in a mirror. A reading difficulty inconsistent with a child's general intelligence beginning with confusion between similar but oppositely oriented letters (b-d, p-q) and a tendency to reverse direction in reading. |
| **Sympathetic Opthalmia** | Inflammation of one eye due to an infection in the other eye. |
| **Synechia** | Adhesion, usually of the iris to cornea or lens. |
| **Tangent Screen** | A large black or gray curtain supported by a framework on which the normal central field and blind spot have been lightly outlined. This instrument is used for measuring the central field of vision. |
| **Tonometer** | An instrument for measuring pressure inside the eye, called intraocular pressure. |
| **Trachoma** | A form of infectious kerato-conjunctivitis caused by a specific virus which in the chronic form produces severe scarring of the eyelids and cornea. |
| **Tunnel Vision (Gun-Barrel, Tubular)** | Contraction of the visual field giving the affected individual the impression of looking through a tunnel. |
| **Uveal Tract** | Entire vascular coat of the eyeball which consists of the iris, ciliary body, and choroid. |
| **Uveitis** | Inflammation of the uveal tract of the eye. |
| **Vision** | The art or faculty of seeing; sight. |
| **Visual Acuity** | See Central Visual Acuity |
| **Vitreous (Vitreous Humor)** | Transparent, colorless mass of soft, gelatinous material filling the eyeball behind the lens. |
| **Vitreous Opacities** | See Floaters. |

# Alive..Aware...A Person.

## Errata

| Page | Paragraph | |
|---|---|---|
| iii | 1 | last line should read -- children (birth to school readiness or eight years old) and their families |
| 2 | 5 | line 6 should read -- development/early childhood teacher was assigned to define their individualized pro- |
| 100 | | 32 weeks should read -- Cries and withdraws from strangers |
| 216 | | Phonetics corrected definition -- the science of speech sounds as elements of language and the application of this science to the understanding and speaking of languages |
| 229 | 3 | line 3 should read -- families, and teachers with whom visually impaired children must cope as they strive |
| 242 | | number 9 should read -- To identify by name the circle, square, and triangle in solid black and to match them to corresponding shapes in outline form |
| 287-299 | | editorial error: throughout the Body Awareness section, "mannequin" should read -- "manikin" |
| 294 | | line 2 of "Where is Thumbkin" should read -- Here I am. Here I am. |
| | | last line of "My Body" should read -- And here are my feet that run all day. |
| 295 | | number 4 should read -- Child draws his eyes, feet, or other body parts, threads the cut-out forms, and hangs them. |
| 399 | | heading "Tables" should read -- Other |

# ALIVE..AWARE...A PERSON.

## Addendum I:

## Assessment Activities and Achievement Criteria

# Alive..Aware...A Person.

Every attempt has been made to communicate that the intent and purpose of Alive.. Aware...A Person. is to provide a resource for teachers and others working with young children. To insure that it would not be viewed as a "cookbook curriculum", many of the assessment activities were incorporated into the teaching activities and criteria for achievement were omitted from the document. Teachers are encouraged, however, to utilize criterion-referenced assessment to evaluate their own instructional programs.

Intervention strategies presented are suitable for all children from birth to school readiness. Special definition for visually impaired children includes such areas as braille readiness and vision stimulation.

The purpose of this addendum is to furnish assessment activities and criteria used for objectives field tested as well as those suggested for new objectives added to the revised copy which was compiled on the basis of field testing results.

Assessment activities or tests designed to measure accurately how well each student has attained stated objectives are called criterion-referenced (tests). Norm-referenced tests are relative measures which make differentiations among achievement levels of students and are measures in which individual scores are interpreted in relationship to the scores of others. Criterion-referenced tests are absolute measures because the student's score is derived in terms of a fixed criterion instead of how it compares with the scores of other students.

The criterion certifying achievement of an objective should represent previously established class minimal level of performance. Researchers interested in replicating any part of this study should carefully examine the data to determine appropriate performance levels for the ages of children who will be in their studies. No attempt has been made here to modify or expand the criteria used in the field testing and they are included as originally stated.

The language-development material was first developed to meet the needs of a group of multihandicapped blind children who had no language. Prior audiological evaluation had indicated that each child had adequate hearing for the development of language. Thus, objectives and methodology are not designed for instructing deaf children. Since most of our students in this group were blind, visual input was not possible.

Children in the multihandicapped group were all profoundly damaged children and were seriously delayed developmentally. Several charts in the review of literature as well as the criteria used in the field testing represent an expected language development sequence for normal children. This points up the need for ongoing assessment of the developmental level of every child so that an individualized program, including realistic expectations, can be assured, i.e., a five-year-old who is functioning at a two-year level must receive instruction appropriate to his functional level of two years. This can cause some dilemma in establishing criteria for the "class". Other impairments such as hearing loss or cerebral palsy may require that a different minimum behavior be defined for some children, keeping in mind that the ultimate criterion for achievement of the objective must remain the same.

In this addendum the reader will note the letter (S) after some criteria meaning that they are suggested, while (DL) follows others and means that developmental level should be considered in the determination of an acceptable individual standard of achievement for multihandicapped children. Just as instruction must be individualized and defined in terms of the next "maneageable task" for the child, so must expectations by teachers and parents be realistic in a given time frame. Children must be permitted to experience "success" at their own rate.

The last column to the right of the page indicates whether the objective and its criterion were field tested. If not checked, the objective and its criterion were added to the document on the basis of the data analyses.

Additional copies of this addendum may be obtained from the writer on request.

Primary references:

Mager, R. F. Preparing Instructional Objectives. Belmont, California: Fearon Publishers, 1962.

Popham, W. J. & Baker, E. I. Systematic Instruction. Englewood Cliffs, New Jersey: Prentice Hall, 1970.

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| MOTOR DEVELOPMENT | | | | |
| | | Early Intervention (pp 135-142) | | |
| | | Objectives or expected behaviors are suggested criteria for determining general developmental levels. | | |
| | | Physical Education (pp 143-147) | | |
| 3-4 yrs. | 1 | Child can perform any of the listed activities upon request | 12 of 12 | X |
| | 2 | Child can perform movements described in Objective 1 in a rhythm established by a piano, record player, or rhythm instrument. | 8 of 12 | X |
| | 3 | Willing participation in activities of this type | 1 of 1 | X |
| | 4 | Teacher observes increasing development of large muscles and increasing agility in using specific equipment | 1 of 1 | X |
| 4-5 yrs. | 5 | Child participates willingly in these daily group exercises | 1 of 1 | X |
| | 6 | The child can perform all four activities with the ball | 4 of 4 | X |
| | 7 | Teacher observes that each child: 1) listens to directions, 2) performs the activity as it was described, and 3) obeys safety rules (activity 4) | 3 of 3 | X |
| 5-6 yrs. | 8 | Child can perform the four activities without support on both the narrow and wide board | 5 of 8 | X |
| | 9 | Teacher observes that child shares equipment and allows peers to have equal turns (activity 2) | 1 of 1 | X |
| LANGUAGE DEVELOPMENT | | | | |
| | | Format I (pp 161-173) | | |
| | 1 | 1) Child can identify body part on direction, 2) Child can identify and correctly repeat body part name, 3) Child can identify and expressively verbalize body part when touched, when touching another, on a doll, on a puzzle. | 3 of 3 (S) | X |
| | 2 | Child performs and correctly verbalizes a minimum of one activity for each body part. | 5 of 6 (S) | X |
| | 3 | Child can correctly name each article of clothing when it is presented. | 5 of 5 (S) | X |
| | 4 | Child correctly names each family member | All immediate family members | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 5 | Child correctly identifies relationship of each family member when person's name is given. | All immediate family members | X |
| | 6 | Correctly identifies sex of each family members, e.g., can touch a man or woman, boy or girl; can complete a statement, i.e., "Tommy is a boy." | All immediate family members | X |
| | 7 | Child correctly identifies and names home and rooms of home by touch, sound, smell | 4 of 4 (S) | X |
| | 8 | Child successfully performs all activities using vocabulary appropriate to his developmental level or words specifically taught in this setting | 6 of 6 (S) | X |
| | 9 | Child can demonstrate and verbally name the function of all major home furnishing items. | 9 of 9 (S) | X |
| | 10 | Child can correctly identify and name all common food items when these are presented. (activity 6) | 10 of 10 (S) | X |
| | 11 | Child can articulate and verbalize most basic needs and wants: hungry (eat), thirsty (drink), cold, hot, go out, some in, get up, play, wash hands, toilet. | 8 of 10 (S) | X |
| | 12 | Child can identify the voice and verbalize the names of most of the persons (peers/adults) within the daily environment at school, at home. | 7 of 10 (S) | X |
| | 13 | Child can identify and name common domestic and zoo animals on feeling, hearing animal, animal sound, finding specific toy animal in a small box with 2-3 other animal toys; names animal. | 5 of 5 (S) | X |
| | 14 | Child can identify and verbalize big/little concepts in at least three settings. | 3 of 3 (S) | X |
| | 15 | Child can identify accurately units of one, two, three. Child can accurately verbalize and count units of one, two three. | 3 for each concept: 1, 2, 3 (S) | X |
| | | Receptive Language (pp 176-179) | | |
| | 1 | Daily observations are recorded of child's overt response to 101 individual common nouns (objects) verbalized by staff in the following situations:<br>1. Removing/putting on wraps/clothing ("take off your coat;" "this is your coat;" hang up your coat;" [gives child coat to hold; helps child hang coat, saying "coat"]; child hangs coat.)<br>2. Utilizing bathroom<br>3. Washing self<br>4. Eating/feeding<br>5. Using classroom equipment<br>6. Placing (and retrieving) objects (on command) in bag, box, other container<br>(Additional Activities) | 4 of 6 (S) | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 2 | Daily observations are recorded of child's overt response to 72 vocabulary words (language cues) uttered prior to, coincident with, and subsequent to self involved activities of the child (i.e., "go bathroom," "clap hands," "jump," "stand," "hungry," "tired," "more," "done," "yes," "no," etc. (Additional (Activities) | (DL) | X |
| | 3 | Based upon 18 stimulus words (names) taken from classroom vocabulary list, daily observations are recorded of child's overt response to:<br>1. Staff-verbalized label (plus appropriate pivot words) coincident with the appearance of specific people within the environment<br>2. Staff-verbalized label (plus appropriate pivot words) subsequent to the appearance and/or disappearance of particular persons<br>3. Staff-verbalized label (plus appropriate pivot words) of meaningful persons prior to (in anticipation of) their appearance<br>(Additional Activities) | (DL) | X |
| | 4 | Based upon 18 stimulus words/phrases taken from classroom vocabulary list, daily observations are recorded of child's overt response to:<br>1. Staff verbalizations of greetings<br>2. Staff verbalizations of departures<br>3. Staff verbalizations of interpersonal feelings and gestures<br>4. Staff verbalizations of praise (reward)<br>5. Staff verbalizations of cooperation, politeness, etc.<br>(Additional Activities) | (DL) | X |
| | 5. | Based upon 33 commands, daily observations are recorded of child's ability to perform commands as directed. (Additional Activities) | (DL) | X |
| | 6. | Based upon 23 stimulus words/phrases taken from classroom vocabulary list, daily observations are recorded of child's overt response to staff verbalizations (i.e., "time to eat," "time to dance," "time to go home," "ice is cold," "radiator hot," "other room," etc.) (Additional Activities) | 20 of 23 | X |
| | | Imitative Language (pp 182-185) | | |
| | 1 | Daily observations are recorded of child's oral imitation of 101 common nouns verbalized by staff (and taken from classroom vocabulary list). These nouns are focal in the following situations:<br>1. Removing wraps<br>2. Utilizing bathroom | (DL) | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | 3. Washing self<br>4. Eating<br>5. Using classroom equipment<br>6. Placing objects into and out of a given container<br>(Additional Activities) | | |
| | 2 | Daily observations are recorded of the child's oral imitation of 72 vocabulary words verbalized by staff. These words (taken from classroom vocabulary list) may be spoken just prior to (in anticipation of), coincident with, or subsequent to a variety of the child's self-involved activities (i.e., "go bathroom," "clap hands," "jump," "stand-up," "hungry," "tired," "more," done," "yes," "no," etc. (Additional Activities) | (DL) | X |
| | 3 | Based upon 18 stimulus words (names) taken from classroom vocabulary list, daily observations are recorded of child's oral imitation of:<br>1. Staff-verbalized label coincident with the appearance of specific people within the environment.<br>2. Staff-verbalized label subsequent to the appearance and/or disappearance of particular persons.<br>3. Staff-verbalized label of meaningful persons in anticipation of their appearance.<br>(Additional Activities) | Child's repeated oral imitation of 18 stimulus words and of labels verbalized by staff | X |
| | 4 | Based upon 18 stimulus words/phrases taken from classroom vocabulary list, daily observations are recorded of child's oral imitation of:<br>1. Staff verbalization of greetings<br>2. Staff verbalization of departures<br>3. Staff verbalization of interpersonal feelings and and gestures<br>4. Staff verbalization of praise (reward)<br>5. Staff verbalization of cooperation, politeness<br>(Additional Activities) | Imitation of at least one staff verbalization in each area, 1-5 | X |
| | 5 | Based upon 33 command words/phrases, (taken from classroom vocabulary list) daily observations are recorded of child's oral imitation of staff-produced commands. (Additional Activities) | Oral imitation of 33 command words/phrases. | X |
| | 6 | Based upon 23 stimulus words/phrases taken from the classroom vocabulary list, daily observations are recorded of child's oral imitation of staff verbalizations (i.e., "time to eat," "time to go home," "ice is cold," etc.) | Imitation of 23 stimulus words/phrases following staff verbalization of them. | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | Expressive Language (pp 188-191) | | |
| | 1 | Daily observations of child's verbalizations of 41 vocabulary items are recorded. These are from classroom list and are focal words in the following activities:<br>1. Removing/putting on wraps<br>2. Utilizing bathroom<br>3. Washing self<br>4. Eating/feeding self<br>5. Using classroom equipment<br>6. Placing (or retrieving) objects in container<br>(Additional Activities) | DL (S) | |
| | 2 | Daily observations of child's ability to verbally communicate his involvement in a given object or activity are recorded as are additional needs and wants as these are self perceived. Assessment items are those words (20) from classroom vocabulary list specific to this self awareness category. (Additional Activities) | 20 words utilized from classroom vocabulary list | X |
| | 3 | Daily observations are recorded of child's ability to verbally identify (name) meaningful persons in the environment as they are present or do subsequently appear (15 items on vocabulary list). In addition, child's naming in class of individuals at home, is considered on the basis of its applicability or possible association to the situation at hand. (Additional Activities) | 15 items on vocabulary list including names of class mates and staff. | X |
| | 4 | Daily observations are recorded regarding the child's ability to initiate vocabulary specific to routines, activities, and objects which include the following situations: greetings, departures, interpersonal feelings and gestures, praise, cooperation, politeness, etc. Specifically, eight words/phrases from the classroom vocabulary list are designated for this assessment. (Additional Activities) | Spontaneous use of the eight words/phrases from classroom vocabulary<br>8 of 8 | X |
| | 5 | From the classroom vocabulary list, eight items in this category are designated for assessment. Daily observations are recorded regarding child's ability to initiate these verbal commands. (Additional Activities) | Verbalization of eight designated items from the classroom list: 8 of 8 | X |
| | 6 | Daily observations are recorded of child's ability to initiate words regarding this category. From the classroom vocabulary list seven items are so designated. (Additional Activities) | Seven designated items from classroom vocabulary list.<br>7 of 7 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | Integrated Expressive Language | | |
| | | See page 194 to utilize this material | | |
| | | Specific Concepts and Constructs (pp 197-206) | | |
| | 1 | All instances in the activities are considered. Prepositions included are "on," in," "under," etc. | All | X |
| | 2 | All instances in the activities above are considered. Target pronouns include "you," "me," "my," "mine," "he," "she," "it." (Additional Activities) | 5 of 7 personal pronouns | X |
| | 3 | Pronouns for assessment include "that," "these," "there," etc. | Six correct responses each for "that," "these," "there," | X |
| | 4 | Assessment numbers include one through eight. | 8 of 8 | X |
| | 5 | Successful performance of at least two examples in each of the above activities (1, 2, 3, 4) | All | X |
| | 6 | This represents a long-term, continuum type objective. All activities listed would be considered as successful progress toward meeting the objective | All | X |
| | 7 | All activities listed are considered evidence of successful progress toward objective. | All | X |
| | 8 | All activities listed are considered evidences of positive progress toward objective. | All | X |
| | 9 | All activities listed are considered to be positive progress toward this objective. | All | X |
| | 10 | All listed activities achieved are considered evidence of progress toward objective. | All | X |
| | 11 | One appropriate response for each activity is considered evidence of progress toward the objective. | All | X |
| | 12 | All listed activities are considered successful progress toward objectives. | All | X |
| | 13 | All listed activities are considered as progress toward this objective. | All | X |
| | 14 | All activities, above, are considered evidences of successful progress toward the objective. | All | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | Total Process (pp 210-215) | | |
| | 1 | All activities. | All | X |
| | 2 | Expressions should be listed and frequency of use recorded. | (DL) | X |
| | | Assessment must be in terms of the next manageable tasks accomplished at this child's developmental level | | |
| | 3 | Vocabulary presented appropriate to child's developmental level should be recorded in terms of frequency and spontaneity of use. | (DL) | X |
| | 4 | All instances recorded are considered evidences of progress toward the objective. | All | X |
| | 5 | Two instances each for 1. and 2. | 2 each for 1 & 2 | X |
| | 6 | All expressions noted are reviewed periodically for ongoing and repeated use. | All recorded expressions | X |
| | 7 | All instances are accepted as progress toward meeting the objective. | All | X |
| | 8 | All instances, of non-structured verbalizations are considered progress toward meeting this objective. | All | X |
| | 9 | Ten instances of non-structured verbalized abstractions are considered evidence of progress toward this objective. | 10 | X |
| | 10 | Any conversations in which child voluntarily initiates response indicate progress toward this objective. | Any voluntary response in conversation (DL) | X |
| SENSORY/PERCEPTUAL DEVELOPMENT | | | | |
| | | Auditory Discrimination (pp 223-226) | | |
| Birth to 2 yrs. | 1 | The child will reach for the object in the correct direction or turn head in that direction, 5 in front, 5 on right, 5 on left | All | X |
| | 2 | The child will: 1) reach for object, 2) locate object with hands in searching fashion or with eyes, and 3) grasp object (incorporated as activity 2) | All | X |
| | 3 | The child will: 1) locate sound source by turning in correct direction, 2) move toward sound source in straight line, and 3) locate object with hand/eyes and grasp (incorporated as activity 5) | 3 of 3 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| Birth to 2 yrs. | 4 | The child will: 1) make similar sound(s), using hands in appropriate manner ("slap" tamborine, clap), 2) show attempt at imitating shythm by sounding instrument quickly or slowly, and 3) show attempt at volume by sounding loudly or softly (activity 2) | 2 of 3 | X |
| | 5 | The child will respond by imitating the sound: b, d, f, j, k, l, m, n, p, r, s, t, a, e in conjunction with appropriate vowel sounds, i.e., ma-ma, ba-ba (activity 2) | 10-14 | X |
| | 6 | The child will name objects presented by the teacher | All | X |
| | | Vision Training (pp 235-239) | | |
| 0-6 mos. | 1 | The child will: 1) move head/eyes so that object is in line of vision, and 2) show some response to item by smiling, reaching, excitement, etc. (activity 2) | 2 of 2 | X |
| | 2 | The child will: 1) follow object coming toward him by keeping eyes fixed on object, and 2) follow object as it moves across field of vision by moving eye/head to keep it in line of vision (activities 3 and 4) | 2 of 2 | X |
| | 3 | The child will, after focusing on the item, reach for and grasp item (activity 2) | All | X |
| 7-10 mos. | 4 | The child will, after focusing on the item, gauge movement and reach for and grasp moving object (activity 3) | All | X |
| | 5 | The child will: 1) focus on item, 2) move toward/after object until it is within reach, 3) gauge movement of object, and 4) reach for and grasp object (activity 2) | 4 of 4 | X |
| | 6 | The child will: 1) move eyes/head in searching fashion, 2) stop movement once item has been located, 3) keep eyes fixed on object and make response, e.g., smile, reach for object, move toward object, etc. (activity 2) | 3 of 3 | X |
| 18 mos. | 7 | The child will locate all items requested: 1) doll's eyes, 2) doll's nose, 3) doll's mouth, 4) doll's arms, 5) doll's legs, 6) ball, 7) dog, 8) little girl, 9) house, and 10) car from picture in book, (activity 1) | 6 of 10 | X |
| | | Tactual Awareness (pp 251-260) | | |
| 3-4 yrs. | 1 | With his eyes closed, the child is able to identify both the hot and cold running (activity 3) | All | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 2 | The child is able to identify the container holding the warm water and that holding the cold water after placing his hands inside each container (activity 2) | All | X |
| | 3 | After testing each of three containers by feeling the water inside, the child is able to identify the container holding the warmest water and the container holding the coldest water (activity 2) | All | X |
| | 4 | The teacher asks the child to identify as hot or cold the following: 1) the inside of your mom's refrigerator, 2) the oven when mom is cooking in it, 3) ice cream, 4) sunshine on a summer day when you go swimming, 5) snow, 6) fire on top of the candle, and 7) light bulb when the lamp has been turned on for a long time (activity 2) | All | X |
| | 5 | The child can, after handling a rock and a ball of cotton, identify which is the heaviest (or lightest) item | All | X |
| | 6 | Child can identify the hardest and the softest item in each of two sets (activity 2) | 4 | X |
| | 7 | Child can categorize objects by identifying if objects are soft, smooth, sharp, rough (activity 5) | All | X |
| 4-6 yrs. | 8 | The child can order each of the three items from heaviest to lightest after handling them (activity 2) | All | X |
| | 9 | Child makes "educational guesses" as to what is in the "feel-box" after each person has had a chance to feel and describe the object (activity 4) | All | X |
| | 10 | Child can categorize eight of the items correctly as either breakable or unbreakable | 8 of 10 | X |
| | 11 | Child can place the rock, sponge, and yarn in proper order of resilience from softest to hardest | 3 of 3 | X |
| | 12 | Teacher selects six appropriate activities for each child; child participates in at least four of the six activities | 4 of 6 | X |
| | 13 | Child will be able to tactually identify whether or not an object is vibrating when it is touched to his hand (arm, knee, foot). (activity 2) | All | X |
| | 14 | After the child follows the teacher's directions, or performs a specific act himself, he is able to identify whether the object is vibrating or not (activity 4) | All | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 15 | Child can determine whether the objects are vibrating fast or slow, weak or strong (activity 5) | 4 | X |
| | 16 | Child can identify those objects in their environment that are vibrating (activity 3) | All | X |
| | | Pre-braille Readiness (pp 261-266) | | |
| 4-5 yrs. | 1 | Given an entire book, the children will correctly use their hands, first the right, then the left, then both together, to follow along the raised lines on each page. Any or all of the suggested materials may be used (activity 3) | All | X |
| | 2 | Given one of the Pre-braille Skill Books, the children will correctly search each page until each child finds the embossed item specified by the teacher (activity 3) | All | X |
| | 3 | Given one or all of the suggested materials, the children can correctly identify which items are different and which are alike on each page (activity 3) | All | X |
| | 4 | Given one of 13 boxes in the Object Collection, the child can correctly identify 3/4 of the objects | 3/4 | X |
| | 5 | The child can select five items from each box that fits the category designated by the teacher (activity 3) | 5 in each box | X |
| | 6 | Given any (or all) of the suggested materials, the children can examine each page and decide which items are long or short. Where several items are on a page, the children will be able to tactually determine which ones are shorter (or longer) than the others (activity 3) | All | X |
| | 7 | Given either the Shape Book or the Form Book, the child would be able to correctly identify (tactually) each shape. The child would be able to use correctly first one hand, then the other, then both together to make the tactual identification (activity 4) | All | X |
| 5-6 yrs. | 8 | Given the Book of Different Widths, the children can examine each page and decide which items are thin or thick. Where there are two items to a page, the children will be able to tactually determine which one is thicker (or thinner) than the other (activity 4) | All | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | Sensorimotor Development (pp 267-276) | | |
| 3-4 yrs. | 1 | After learning all or most of the above games and stunts, the children will participate in three games and two stunts | 3 games<br>2 stunts | X |
| | 2 | Given a choice of the five animal walk stunts and the three balance beam activities, a child will be able to correctly execute three animal walks and two balance beam activities | 3 of 5<br>2 of 3 | X |
| | 3 | Children can identify all the parts of their body called for by the leader of the game or by the words of the song (activity 2) | 3 of 5 game songs | X |
| | 4 | The child will participate willingly in activities of this type | All | |
| | | Auditory Perception | | |
| | 5 | The child finds and places eight objects in specified places; the child discriminates and identifies the pitch and direction of eight sounds | 8 of 10 items<br>8 of 10 sounds | X |
| | | Spatial Organization | | |
| | 6 | Child can identify each of the 14 body parts listed on his own body; child can correctly follow five movement activities directed by the teacher (activity 2b and 2c) | 14 items<br>5 movement activities | X |
| 4-6 yrs. | 7 | The child can appropriately complete all four of the activities listed | All | X |
| | | Visual-Motor Perception | | |
| 3-4 yrs. | 8 | The teacher designs five new figure-ground activities, and the child correctly discriminates the designated figure from each background in three of the five activities | 3 of 5 | X |
| | 9 | Teacher presents five simple figures to each child. The child copies correctly two of the five. | 2 of 5 | X |
| | 10 | The child can successfully complete four of the above activities. | 4 of 5 | X |
| | 11 | The child identifies four of the six shapes listed | 4 of 6 | X |
| 4-6 yrs. | 12 | The child will color a design, staying within the line | All | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 13 | The child will use scissors independently to cut on or between lines | All | X |
| | 14 | The child appropriately identifies shapes presented | All | X |
| | 15 | The child appropriately completes the activities listed | All | X |
| SELF AND SOCIAL AWARENESS | | | | |
| | | Physical and Emotional Bases of Behavior (pp 279-286) | | |
| | | Objectives or Expected Behaviors are suggested criteria for determining general developmental levels | | |
| | | Body Awareness (pp 287-299) | | |
| 3-4 yrs. | 1 | The child will touch his: head, face, forehead, chin, cheeks, nose, eyes, mouth, lips, tongue, teeth, hair, ear, neck, shoulders, arm, armpit, elbow, upper arms, wrist, forearm, hand, index finger, middle finger, ring finger, little finger, thumb, palm, back of hand, knuckles, fingernails, closed fist, open hand, chest, upper back, lower, side of body, stomach (tummy), waist, hip, bottom (seat), leg, upper leg (thigh), knee, skin, calf, ankle, heel, arch, toes (activity 2) | 30 of 50 | X |
| | 2 | The child will touch his: feet, arms, legs, hands, eyes, ears, sides, knees, cheeks, lips, shoulders (activity 2) | 9 of 11 | X |
| | 3 | Child can present the appropriate finger at the appropriate time as he sings "Ten Little Fingers" (activity 2) | Complete Activity | X |
| | 4 | The child will give the function of the body parts: eyes, ears, nose, mouth, lips, tongue, teeth, fingers, hands, arms, legs, feet | 8 of 12 | |
| | 5 | The child finds his nearest or same configuration, verbalizing while identifying parts and proportions (activity 2) | Complete Activity | X |
| | 6 | 1) Using Peabody manikin or clay model, the child identifies missing or misplaced parts, 2) Using doll boards, the child identifies missing or misplaced parts, 3) Parts to be identified: head, arms, feet, toes, fingers, eyes, nose, mouth, hair, legs (Activities 2 and 3) | 8 of 10 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 7 | Teacher plays several records (or on a piano) and the children respond to the instructions given | 8 of 10 | X |
| | 8 | The child can appropriately complete activities listed | All | |
| | 9 | Say to the child: 1) Put your hands in front of your body, 2) Put your hands behind your head, 3) Wiggle or shake your right foot, 4) Hold up your left hand, 5) Put your hand above your head, 6) Lie down, 7) Roll over, 8) Stand up, 9) Put your hands higher than your head, 10) Touch the bottom of your foot, 11) Put your hands below your chin, 12) Put your hand under your arm, 13) Put your hands between your legs, 14) Put your finger in the center of your forehead, 15) Place your hand near your face, 16) Put your hand close to your leg, 17) Put your hands next to each other, 18) Now put your hands far from each other, 19) Put your hands beside your ears, 20) Now put your hands away from your eyes, 21) Take one step backward, 22) Take one step forward, 23) Take one step sideways, 24) Put your hand on top of your head, 25) Put your finger inside your mouth, 26) Put your hands together (Lesson activities) | 20 of 26 | X |
| | 10 | Say to the child: 1) Place yourself in front of me, 2) Turn yourself, if necessary, so your whole body is facing me, 3) Stand so your back is to me, 4) Put the chair so it is on your right, 5) Put the chair behind you, 6) Place yourself to the left of the chair, 7) Place the book over your head, 8) Put the book down, 9) Put your foot up on the chair, 10) Hold the book high, 11) Hold the book low, 12) Touch the wall with the bottom of your foot, 13) Move the book so that it is below your feet, 14) Put the book under the table, 15) Place yourself between the chair and the table, 16) Put your finger in the center of the pegboard, 17) Put your finger in the middle of the ruler, 18) Place yourself near the table, 19) Place yourself far from the table, 20) Stand close to the chair, 21) Put yourself next to the table, 22) Stand beside the chair, 23) Move away from the chair, 24) Go across the room (hall), 25) Push the chair backward, 26) Push the chair forward, 27) Push the chair sideways, 28) Put your hand beneath the book, 29) Stand on top of the book, 30) Walk around the chair, 31) Put your hand in the box, 32) Take your hand out of the box, 33) Place yourself underneath the table, 34) Move your foot toward the chair, 35) Put your finger through the hole (Activity 1) | 25 of 35 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | Social Education and Citizenship (pp 301-308) | | |
| 3-4 yrs. | 1 | The child will follow established directions: 1) placing personal belongings in his cubby hole, 2) returning materials to proper place, 3) walking quietly in halls, 4) keep in area for playground, 5) observing quiet, respectful behavior in the library (activity 2) | 5 of 5 | X |
| | 2 | Each child will: participate in discussions | 2 of 2 | X |
| | 3 | Each child will identify the following: 1) walk in school halls, 2) keep quiet in school halls, 3) no throwing of snow or mud balls at building or other person, 4) cross only at corners, 5) bikes must have licenses, 6) do not litter, 7) do not play on busy streets (activity 2) | 5 of 7 | X |
| | 4 | Each child will: 1) participate in group discussions, 2) vote on decisions, 3) participate in group activities, 4) select items for own use during free time, 5) correct child who interferes with his behavior (activity 3) | 5 of 5 | X |
| | 5 | The child will not: 1) touch another child or his personal belongings without permission, 2) push, shove, or commit anything which could endanger another, 3) interrupt child who is talking, 4) refuse another child to join in group activity | 4 of 4 | X |
| | 6 | Each child will: 1) listen quietly while the other child is speaking, 2) not interrupt until child is finished speaking (activity 2) | 2 of 2 | X |
| | 7 | Each child will: 1) not attempt to take item (game, book, toy) from another child, 2) wait his turn, or get in line to use item, 3) give item to another when his time is up, 4) not keep other children from using item when two or more can play, read, etc. (activity 2) | 4 of 4 | X |
| 4-6 yrs. | 8 | Each child will: 1) respond appropriately to other child (laugh at joke, sympathize over problem, etc.), 2) expand upon other child's contribution by relating similar experience, feeling, etc. | 2 of 2 | X |
| | 9 | Each child will: 1) take care of personal belongings 2) be responsible for cleaning up after himself, 3) share toys, books, games, 4) show willingness to take turns by getting in line, 5) participate in activities for group when he would rather do something else, 6) play with child who is not his "best friend" when pair is required for group activity (activity 3) | 6 of 6 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 10 | Each child will: 1) follow the leader's direction when he is a team member, 2) give every child a turn at activity when he is leader, 3) as leader, not allow privileges to any one member, not given to entire team (activity 2) | 3 of 3 | X |
| | 11 | Each child will: 1) keep all possessions in his own cubby hole, 2) have name tag in all clothing, 3) write, or have his name written on all possessions brought into the class (activity 5) | 3 of 3 | X |
| | 12 | Each child will: 1) ask permission to play with/look at any possession another child brought into class, 2) use equipment appropriately, 3) not damage equipment or material purposely, 4) place boxed material in correct area, making sure all pieces have been placed in book (activity 2) | 4 of 4 | X |
| COGNITIVE/CREATIVITY | | | | |
| | | Preschool Developmental (pp 309-320) | | |
| | | (Free Play) | | |
| 3-4 yrs. | 1 | Teacher observation of cooperative play, consideration of peers, and assistance at cleanup time | 1 of 1 | X |
| | 2 | Child selects activity for himself | 1 of 1 | X |
| | 3 | Child requests time to work with teacher on one-to-one basis | 1 of 1 | X |
| 5-6 yrs. | 4 | Child can conduct himself with little or no supervision in a productive and curious manner | 1 of 1 | X |
| | | (Calendar) | | |
| 4-5 yrs. | 5 | Child can place dates on calendar in order from left to right | 1 of 1 | X |
| | 6 | 1) Teacher or child points to column, child identifies day labeled at top, 2) Teacher or child points to one date, child identifies day of week by checking label at top of column | 1 of 2 | X |
| | 7 | 1) Child can name season/holiday after hearing a description of weather, customs, celebrations, etc., 2) Child can describe weather, customs, celebrations, etc. after hearing the name of season/holiday | 1 of 2 | X |
| 5-6 yrs. | 8 | Child can volunteer information about the day of the week; Child can volunteer information about the date; Child can volunteer information about the month; Child can sing calendar song | 3 of 4 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 9 | Child can select the correct numeral from a selection of 10 | 1 of 1 | X |
| | | (Group Activities) | | |
| 3-4 yrs. | 10 | After repeated hearings of the songs, child can correctly perform those actions described on record | All | X |
| | 11 | 1) Child performs exactly as directed by the narrator on the phonograph record, 2) Child follows directions and rules as dictated by the teacher | 2 of 2 | X |
| | | (Exercises) | | |
| 4-5 yrs. | 12 | 1) Child places self or object in proper directed position in relation to box, 2) Child places body in proper directed position in relation to circle | 2 of 2 | X |
| 3-4 yrs. | 13 | Teacher observes that child performs exercises willingly and as well as he can developmentally | 1 of 1 | X |
| | | (Weather) | | |
| 4-6 yrs. | 14 | Child can report accurately on weather and can appropriately select bear's outfit | 1 of 1 | X |
| | | (Snack) | | |
| 3-4 yrs. | 15 | Teacher observes child using good manners, cleaning up after eating, and trying new foods | 1 of 1 | X |
| | | (Rest) | | |
| 3-4 yrs. | 16 | Teacher observes that child relaxes during rest time | 1 of 1 | X |
| | | Language Arts (pp 321-330) | | |
| 3-4 yrs. | 1 | 1 and 2) Child will respond with the following appropriate information: a) four activities included in the trip stated in sequence, b) two items described, i.e., red, brick, big, etc., c) correct name and description, i.e., one facial feature, height and costume, d) child states in own words, that the duty of firemen is to protect people and property from damage; 3) The child will give appropriate reasons for his answer, e.g., "Yes, I like to ride the truck and put out fires." "No, I don't like all the noise." "No, I want to be a _________." "Yes, I want to be a ___________." | 9 of 9 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 2 | 1) Teacher asks the child who is listening: a) give the main details expressed by speaker, b) ask questions of the speaker if more information needed, c) child sits quietly while another child is speaking, without excessive fidgeting or inappropriate interruptions; 2) Each child will: a) listen to other contributions and react by stating his agreement or disagreement, b) listen to suggestions offered for solution, react to them and contribute to final decision by drawing on ideas expressed by others | 5 of 5 | X |
| | 3 | The child will complete each task in the sequence given in the direction | 4 of 5 | X |
| | 4 | 1) When shown an object or representative picture of a new word, the child can correctly name it, 2) The child will give appropriate definition for new words, "place where plants grow," "being afraid," "rabbit's tail," "tool for garden," "thing that grows", 3) Child will identify object or person with correct word name, 4) Child will use appropriate word to express himself in sentence form, 5) Consistent awareness of and utilization of sentences containing adjective and adverb phrases in all oral expression | 5 of 5 | X |
| | 5 | Child will demonstrate appreciation by willingly selecting material and/or participating in class dramatization or storytime appropriately | 1 of 1 | X |
| | 6 | 1) The child will select three pictures for each sound, 2) The child will correctly complete three sets from the game, 3) The child will state three other words for each sound | All | X |
| | 7 | The child will: 1) correctly respond with the letters in sequence without omission, 2) Review correctly all letters of the alphabet, 3) Perform correct sequential arrangement of alphabet picture cards, 4) Correctly arrange all alphabet letter cards in sequential order | 3 of 3 | X |
| | 8 | 1) letters written in sequence without omission, Alphabet board correctly completed | 2 of 2 | X |
| | 9 | 1) The child will read the name aloud with the card attached: door, table, chair, slide, curtain, phonograph, window, light switch, name on cubby hole, music center, mirror, black board, easel, 2) Child can match all label cards to those in the room, 3) The child will respond with the correct word for printed label, 4) Child can read names of classmates (activities 5, 6, 7) | 4 of 4 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 10 | 1) The child can determine the meter by sounding out in correct beat, 2) Given four omitted rhymes the child can supply each missing word, 3) The child correctly responds with the word that rhymes with the pictured object, 4) The child's poem will have correct rhythmic and rhyming patterns | 4 of 4 | X |
| | 11 | The child will complete the activities listed | 2 of 3 | X |
| | 12 | 1) Child can correctly pair six sets of opposites, 2) Child will correctly complete three sequence boards, 3) Child will answer questions correctly (activities 4 and 5) | 3 of 3 | X |
| | 13 | The child will respond with correct answer: 1) fantasy, 2) fantasy, 3) fantasy, 4) fact-possible, 5) fantasy, 6) fact-possible, 7) fact-possible, 8) fact, 9) fantasy, 10) fantasy (activity 2) | 8 of 10 | X |
| | 14 | Each child will demonstrate knowledge of role through a) correct (appropriate) dialogue b) appropriate tone in voice expressing emotion (anger, delight, etc.) | 5 (a)<br>5 (b)<br>(S) | X |
| | | Mathematics (pp 331-345) | | |
| 3-4 yrs. | 1 | The child will sort a variety of objects according to attributes | All | |
| | 2 | The child will complete the three activities listed | 3 of 3 | |
| | 3 | Entire task must be completed correctly | All | X |
| | 4 | Entire task must be completed correctly | All | X |
| | 5 | Entire task must be completed correctly | All | X |
| | 6 | Correctly associate each shape and its name | 5 of 6 | X |
| | 7 | 1) Correctly describes each object in terms of circles, corners, etc., 2) Correctly selects specified objects | 9 of 12 | X |
| | 8 | The child will complete each task according to a model | All | |
| | 9 | Entire task must be completed correctly | All | X |
| | 10 | Entire task must be completed correctly | All | |
| 4-6 yrs. | 11 | 1) Express number of days weather was clear, rainy, cold, etc., 2) Express what event is occurring: a) next, b) after event, c) how many days between two events, 3) Verbalize what each step involves and then perform activity following each step in sequence | 2 of 3 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 12 | The child will identify each numeral correctly | All | |
| | 13 | Entire task must be completed correctly | All | |
| | 14 | Entire task must be completed correctly | All | |
| | 15 | Child will respond with appropriate number | 7 of 10 | |
| | 16 | Entire task must be completed correctly | All | |
| | 17 | Child is able to count to 30 or further without | 1 of 1 | X |
| | 18 | Identifies each numeral correctly at least to 30 | 1 of 1 | X |
| | 19 | Child correctly responds with each group's number name | 5 of 5 | X |
| | 20 | The child selects an object(s) to illustrate a math term listed | 15 of 20 | |
| | 21 | The child will complete the activity listed | All | |
| | 22 | The child will identify and give uses for the items listed | 4 of 5 | |
| | 23 | The child will write each number correctly | 5 of 5 | |
| | 24 | The child can respond with the correct answer after combining and counting objects in 10 problems | All | X |
| | | Science (pp 346-355) | | |
| 3-4 yrs. | 1 | 1) Children will be able to respond to the above questions by having witnessed or experienced the result, 2) Children continue to question other phenomena which they observe | 2 of 2 | X |
| | 2 | Child will complete 5 of 8 activities listed | 5 of 8 | X |
| | 3 | 1) Child will group animals in infant and adult classes, 2) The child will group animals into these categories: house pets, farm animals, wild animals, 3) The child will group pictures: a) into classes of animals, toys, rocks, tools, plants, b) into one group of animals and plants, c) into a group containing toys, rocks, tools, 4) The children will group pictures into sets of: a) animals, b) plants, c) people, 5) and 6) child will sort objects according to color, size, or category | 4 of 6 | X |
| | 4 | 1) and 2) Child will identify the seasons and discuss observable changes in the environment, 3) and 6) The child will match activities to seasons, 4) and 5) The child will match weather clothing changes to seasons | 3 of 6 | |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| 4-6 yrs. | 5 | 1) and 2) and 6) The child will observe and discuss animals, noting similarities and differences, 3) and 7) The child will state needs of each in terms of food/habitat, etc., 4) The child will identify animals and their sounds, 5) The child will participate in caring for a classroom pet, if possible. | 4 of 7 | |
| | 6 | 1) The child will state, in his own terms, that plant #1 grew because it was given light and water, and plants #2 and 3 did not grow because they were denied vital elements necessary for growth, 2) The child will respond with appropriate answers such as: put plant in window and water it, water grass when there is no rain, etc., 3) The child will participate in plant growing activities and observe growth | 3 of 3 | X |
| | 7 | 1) The child will select groups of animals or characteristics: a) those with 4 legs, b) those with 2 legs, c) those with wings, d) webbed feet, e) fur covering, f) skin covering, g) feather covering, h) paws, i) hoofs, j) eyes, mouth, ears; 2) The child will correctly pair the animal and its voice; 3) Each child will group 10 animals into the following categories: housepets, farm animals, wild animals. | 8 of 10 | X |
| | 8 | 1) (a) Shown 2 sets of pictures the child can correctly class stages of growth, b) The child will state that an infant becomes an adult by "growing", or "growing up"; c) The child will correctly identify animals in names that indicate their growth stage, puppy-dog, kitten-cat, lamb-sheep, cub-lion/bear, calf-cow, foal-horse; 2), 3), & 4) The child will identify infant and adult pictures of people and animals and discuss differences; 5) Each child will demonstrate knowledge of the fact that growth can be measured by expressing growth in plants by new height, 6) Each child will point out his marks to demonstrate his growth. | 5 of 5 | X |
| | 9 | 1) Each child will select five nonliving and five living items, 2) Each child will state three living and three nonliving items | 2 of 2 | X |
| | 10 | 1) Child can verbally describe an activity using each piece of science equipment with which he is familiar, 2) Child can demonstrate the use of each piece of equipment with which he is familiar | 2 of 2 | X |
| | 11 | 1) The child will demonstrate knowledge that plants require special materials for growth by including light, water, soil, and air in chart, 2) The child will manipulate materials in his environment and discuss observations | All | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | | Social Studies (pp 356-364) | | |
| 3-4 yrs. | 1 | 1. A. Each child will state needs: a) food, b) shelter, c) clothing, d) transportation, e) communication; B. Each child will state the reason that these items are necessary a) food - to eat, so I can grow, live, etc., b) shelter - to keep me out of the elements (weather), c) clothing - to keep warm, d) transportation - to move from one place to another, to get to school, grocery, etc., e) communication - to find out news, to call home, friend, etc. (activities 2 & 3) | 10 of 10 | X |
| | 2 | Each child will identify types of workers and their services: a) Father - (varies to child), b) Farmer - grows food for us to eat, c) Police - protect and help us, d) Fireman - protects home from fire, e) Bus driver - transportation, f) Crossing Guard - help crossing street; safety, g) Doctor/nurse - helps cure illness, and preventative, h) Construction worker - builds home, places to work (activity 2) | 5 of 8 | X |
| | 3 | Each child will state: 1) differences in clothing, 2) differences in food preferences, 3) differences in family role, 4) differences in home structure, 5) differences in holidays (activity 2) | 3 of 5 | X |
| 4-5 yrs. | 4 | Each child will identify the following people and state their roles: 1) mother - cooks, cleans, mends, comforts, plays with child, 2) father - works, gardens, comforts, plays with child, 3) themselves - helps parents, 4) principal - runs school, 5) librarian-charge of books, reads stories, 6) cafeteria worker - fixes lunches, 7) custodian - fixes broken items, keeps school clean, 8) mailmen - deliver mail, 9) sanitation worker - pick up garbage, keep streets clean, 10) school guard - helps them cross busy streets (activity 3) | 6 of 10 | X |
| | 5 | 1) Each child will form sets containing: 10 food items, 10 clothing articles, 10 transportation vehicles, 2) Each child will complete the game placing all cards on correct board (activities 4 & 5) | 2 of 2 | X |
| 5-6 yrs. | 6 | Child will locate on calendar: a) birthday, b) two holidays, c) two special class events (activity 2) | 1 of 1 | X |
| | 7 | Each child will identify the following holidays and state the reason for it: 1) Veterans Day, 2) Thanksgiving, 3) New Year's Day, 4) Memorial Day, 5) Independence Day, 6) Labor Day (activity 2) | 4 of 6 | X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 8 | Each child will participate by: 1) Singing a song taught in association with a holiday, 2) Complete art depicting a holiday (activity 3) | 2 of 2 | X |
| | 9 | Each child will identify the customs which accompany the following: 1) St. Nickolaus Day, 2) Mardi Gras, 3) Children's Day, 4) Halloween, 5) Christmas tree, 6) Easter gifts, 7) Jewish New Year, 8) Chinese New Year (activity 2) | 4 of 8 | X |
| | 10 | Each child will state that the following resources are endangered and give one appropriate way they can help conserve each (e.g. turn off lights when not using, not pulling up plants, etc.) 1) water, 2) air, 3) soil, 4) fuel supplies (activity 3) | 2 of 4 | X |
| | | Art (pp 365-370) | | |
| 3-4 yrs. | 1 | Child completes each activity | 3 of 4 | X |
| | 2 | Complete total activity correctly in two successive sessions | 13 | X |
| | 3 | Complete total activity correctly in two successive sessions | 6 | X |
| | 4 | Child listens to teacher instructions, selects his materials, and completes an art work | Complete Activity | X |
| | 5 | 1) Child creates a painting independently, 2) Child draws or paints a picture and illustrating the story read by the librarian, 3) Child selects his materials and draws a surprise picture independently | 3 of 3 | X |
| | 6 | Child brings materials he has found and uses them to complete an art project | 2 of 2 | X |
| | 7 | Child correctly answers all questions asked | Complete Activity | X |
| | 8 | Child correctly answers all questions asked | 3 | X |
| | 9 | Completion of at least three of the four activities | 3 of 4 | X |
| | 10 | Cooperation and completion of all activities | 1 | X |
| | | Music (pp 371-375) | | |
| 4-5 yrs. | 1 | 1) Ask children to sing the song and identify by signalling with hands high parts, then low parts, 2) Ask children to imitate different pitches sung by the teacher, 3) Sing or play two pitches and ask children whether the second pitch was higher or lower than the first | 2 of 3 | X X |

| Age Range | Obj. | Assessment Activity | Criterion | Field Tested |
|---|---|---|---|---|
| | 2 | 1) Children sing entire song with appropriate motions, 2) Children participate in discussion of meaning of song | 2 of 2 | X |
| | 3 | Correspond to successful performance of the activities | 4 of 7 | X |
| | 4 | Successful participation in activities and contributions to group discussions | 1 of 1 | X |
| 5-6 yrs. | 5 | 1) Ask the child what the song is about and what special feeling it has, 2) Ask the child how he would make his voice reflect the feeling of the song, 3) Have the child sing the song in the group (activities 4 and 5) | 3 of 3 | |
| | 6 | 1) Ask children questions about the recorded story and the music which accompanies it, 2) Play recorded music and ask children what mood the music has, 3) Successful singing of songs of various moods | 3 of 3 | X |